PER

The New York
Academy of Medicine



The
Rudolph August Witthaus
Library Fund

Established 1915


Digitized by the Internet Archive
in 2016

https://archive.org/details/journalofflorida54unse

JANUARY, 1967
Volume 54
Number 1

The JOURNAL of the Florida Medical Association

Research Number

University of Miami School of Medicine

OFFICIAL PUBLICATION OF THE FLORIDA MEDICAL ASSOCIATION

PLAN TO ATTEND
93rd Annual Meeting
May 11-14, 1967
Americana Hotel
Bal Harbour

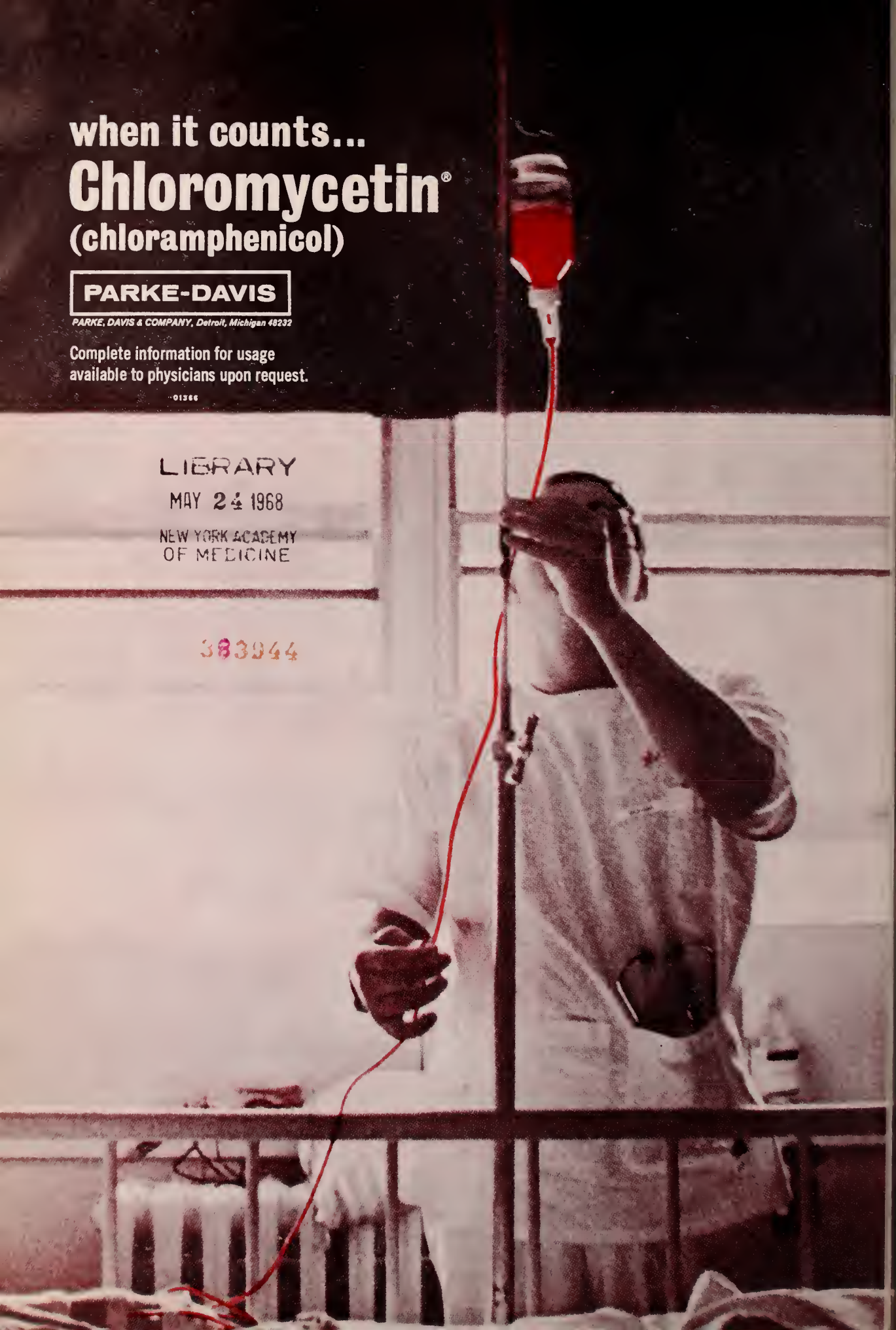
when it counts...
Chloromycetin®
(chloramphenicol)

PARKE-DAVIS
PARKE, DAVIS & COMPANY, Detroit, Michigan 48232

Complete information for usage
available to physicians upon request.
01366

LIBRARY
MAY 24 1968
NEW YORK ACADEMY
OF MEDICINE

383944



to help restore and stabilize the intestinal flora

LACTINEX®

TABLETS & GRANULES

for fever blisters and canker sores of herpetic origin

LACTINEX contains a standardized viable mixed culture of *Lactobacillus acidophilus* and *L. bulgaricus* with the naturally occurring metabolic products produced by these organisms.

LACTINEX was introduced to help restore the flora of the intestinal tract in infants and adults.[1,2,3,4]

LACTINEX has also been shown to be useful in the treatment of fever blisters and canker sores of herpetic origin.[5,6,7,8]

No untoward side effects have been reported to date.

Literature on indications and dosage available on request.

HYNSON, WESTCOTT & DUNNING, INC.

BALTIMORE, MARYLAND 21201

(LX03)

nces: (1) Siver, R. H.: CMD, *21*:109, September (2) Frykman, H. H.: Minn. Med., *38*:19-27, ry 1955. (3) McGivney, J.: Tex. State Jour. Med., 18, January 1955. (4) Quehl, T. M.: Jour. of a Acad. Gen. Prac., *15*:15-16, October 1965. (5) es, D. J.: N.Y. State Jour. Med., *58*:2672-2673, August 1958. (6) Weekes, D. J.: EENT Digest, *25*:47-59, December 1963. (7) Abbott, P. L.: Jour. Oral Surg., Anes., & Hosp. Dental Serv., 310-312, July 1961. (8) Rapoport, L. and Levine, W. I.: Oral Surg., Oral Med. & Oral Path., *20*:591-593, November 1965.

LX

When the stagnant sinus must be drained...



Transillumination of the sinuses—diffuse shadow on right side of face indicates unilateral maxillary sinusitis.

In the common cold, Neo-Synephrine is unsurpassed for reducing nasal turgescence. It stops the stuffy feeling at once. It opens sinus ostia to re-establish drainage and lessen the chance of sinusitis. With Neo-Synephrine, in the concentrations most commonly used, decongestion lasts long enough for extended breathing comfort, without endangering delicate respiratory tissue. Systemic side effects are virtually unknown. There is little rebound tendency.

Neo-Synephrine® HCl

Brand of phenylephrine hydrochloride

is available in a variety of forms, for all ages:

- 1/8% solution for infants
- 1/4% solution for children and adults
- 1/4% pediatric nasal spray for children
- 1/2% solution for adults
- 1/2% nasal spray for adults
- 1/2% jelly for children and adults
- 1% solution for adults (resistant cases)

Also NTZ® Solution or Spray
Antihistamine-decongestant

Winthrop Laboratories, New York, N.Y. 10016 Winthrop

(1026M)

The JOURNAL
of the Florida Medical Association

Volume 54, Number 1, January 1967

THAD MOSELEY, M.D.
Editor

Assistant Editors

JOHN M. PACKARD, M.D.
OSCAR W. FREEMAN, M.D.

Assistant Editor from the Board of Governors
JACK Q. CLEVELAND, M.D.

W. HAROLD PARHAM
Managing Editor

EUGENE L. NIXON
Associate Managing Editor

LOUISE RADER
Assistant Managing Editor

EDITH B. HILL
Editorial Consultant

Published monthly at Jacksonville, Florida. Price $7.00 a year: single numbers, 70 cents. Address Journal of Florida Medical Association, P.O. Box 411, 735 Riverside Ave., Jacksonville, Fla. 32203. Telephone (904) 356-1571. Accepted for mailing at special rate of postage provided for in Section 1103, Act of Congress of October 3, 1917; authorized October 16, 1918. Entered as second class matter under Act of Congress of March 3, 1879, at the post office at Jacksonville, Florida, October 23, 1924.

THIS ISSUE

Research Presentations

Research at the University of Miami School of Medicine, Hayden C. Nicholson, M.D. 15

Departments

Anatomy, Hayden C. Nicholson, M.D. 16
Anesthesiology, Frank Moya, M.D. 17
Biochemistry, George T. Lewis, Ph.D. 19
Dermatology, Harvey Blank, M.D. 21
Medicine, William J. Harrington, M.D. 23
Microbiology, Bennett Sallman, Ph.D. 26
Neurology, Peritz Scheinberg, M.D. 28
Obstetrics-Gynecology, William A. Little, M.D. 30
Ophthalmology, Edward W. D. Norton, M.D. 31
Pathology, W. A. D. Anderson, M.D 34
Pediatrics, William L. Nyhan, M.D. 36
Pharmacology, William B. Deichmann, Ph.D. 38
Physiology, Gordon C. Ring, Ph.D. 40
Psychiatry, John Caldwell, M.D. 41
Radiology, Raymond E. Parks, M.D. 42
Surgery, W. Dean Warren, M.D. 44

Departments

President's Page 46
News 53
Association News 60
The Medical Detective 63
Government News 73
Meetings 75
Public Health Topics 76
Others Are Saying 78
Deaths 82
Classified 88

Miscellaneous

Florida Medical Association Officers and Council Chairmen 86
Information for Authors 86
Index to Advertisers 87

Owned and published by the Florida Medical Association, Inc. The Journal is not responsible for the opinions and statements of its contributors.

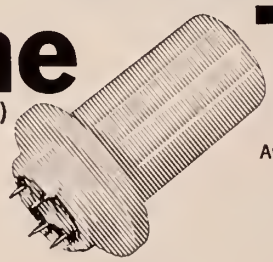
what time is it?

For the past
two years
there's been
one new case
of active tuberculosis
reported for every
four thousand
of U.S. population.

it's time to tine.

Tuberculin, Tine Test

(Rosenthal) Lederle



Available in 5's and 25's.
Order now
from your pharmacist
or your Lederle
representative.

LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York

414-6—4046R



Phenaphen® with Codeine

the only leading compound analgesic that calms instead of caffeinates

Each capsule contains:

Phenobarbital (¼ gr.) ..... 16.2 mg.
(Warning: may be habit forming)
Aspirin (2½ gr.) .....162.0 mg.
Phenacetin (3 gr.) .....194.0 mg.
Hyoscyamine sulfate.....0.031 mg.
Codeine phosphate.....¼ gr. (No. 2), ½ gr. (No. 3), 1 gr. (No. 4)
(Warning: may be habit forming)

Contraindications: Hypersensitivity to any ingredient.

Precautions: As with all phenacetin-containing products, avoid excessive or prolonged use.

Side Effects: Side effects are uncommon—nausea, constipation, and drowsiness have been reported.

A·H·ROBINS

A. H. ROBINS CO., INC., Richmond, Va. 23220

Against these three major pathogens...



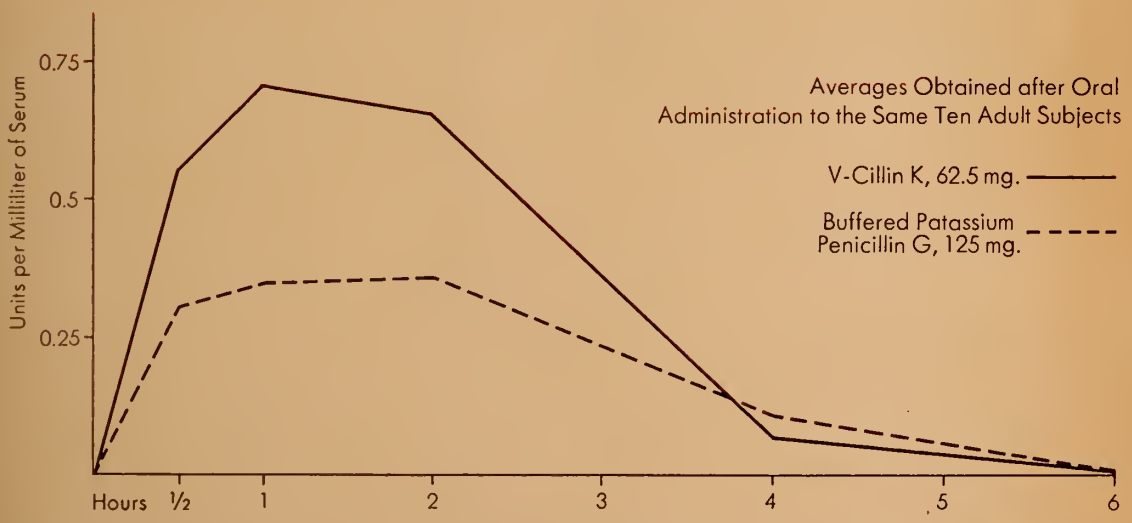
V-Cillin K® provides unexcelled oral antibacterial activity

because it combines a high degree of in-vitro activity...

Antibiotic	Staph. Aureus (Penicillin-Sensitive) MIC (mcg./ml.) Median	Range	Streptococcus, Group A MIC (mcg./ml.) Median	Range	Diplacaccus Pneumoniae MIC (mcg./ml.) Median	Range
Penicillin V	0.02	0.02-0.04	0.02	0.003-0.4	0.01	0.005-0.2
Penicillin G	0.02	0.005-1.6	0.005	0.002-0.2	0.02	0.01-0.1
Methicillin	1.6	0.4-6.3	0.2	0.1-0.4	0.2	0.1-1.6
Oxacillin	0.4	0.1-3.1	0.04	0.02-0.4	0.1	0.04-0.8
Claxacillin	0.2	0.2-0.8	0.1	0.1-0.8	—	—
Nafcillin	0.4	0.2-0.8	0.04	0.02-0.1	0.02	0.02-0.2
Ampicillin	0.2	0.1-0.8	0.02	0.01-0.04	0.02	0.01-0.04

Adapted from Klein, J. O., and Finland, M.: New England J. Med., 269 1019, 1963.

with high blood levels, even in the presence of food



Adapted from Griffith, R. S., and Black, H. R.: Current Ther. Res., 6 253, 1964.

V-Cillin K® Lilly 700157

Potassium Phenoxymethyl Penicillin

(See next page for prescribing informatio

New 500 mg. tablets...a more convenient way to give high doses



Description: V-Cillin K is the potassium salt of V-Cillin® (phenoxymethyl penicillin, Lilly). This chemically improved form combines acid stability with immediate solubility and rapid absorption. Higher serum levels are obtained more rapidly with this penicillin than with equal oral doses of penicillin G. The higher serum levels and acid stability of V-Cillin K make it a more dependable penicillin for oral use.

V-Cillin K, Pediatric, is an oral solution of clinically proved V-Cillin K in teaspoon dosage form. When mixed as directed, each 5 cc. (approximately one teaspoonful) will contain 125 mg. (200,000 units) phenoxymethyl penicillin as the potassium salt.

Indications: V-Cillin K has been shown to be effective in the treatment of streptococcus, pneumococcus, and gonococcus infections as well as infections caused by sensitive strains of staphylococci. It may be used for the prophylaxis of streptococcus infections in patients with a history of rheumatic fever and for the prevention of bacterial endocarditis after tonsillectomy and tooth extraction in those patients with a history of rheumatic fever or congenital heart disease.

Contraindication: V-Cillin K should not be administered to a patient with a history of penicillin hypersensitivity.

Precautions: V-Cillin K should be used cautiously, if at all, in a patient with a strongly positive history of allergy. Reactions occur more frequently in individuals with bronchial asthma or other allergies or in those who have previously demonstrated sensitivity to penicillin hypersensitivity reactions occur, the drug should be discontinued.

Adverse Reactions: Although serious allergic reactions are m less common with administration of oral penicillin than with intramus lar forms, skin rash, symptoms resembling those of serum sickness, other manifestations of penicillin allergy may occur. When penicilli odministered, measures for treating anaphylaxis should be rea available. Those include epinephrine, oxygen, and pressor drugs relief of immediate allergic manifestations as well as ontihistami and corticosteroids for delayed effects.

The use of antimicrobial agents may be associated with the o growth of antibiotic-resistant organisms; in such a case, antibiotic ministration should be stopped and appropriate measures taken.

Administration and Dosage: For Tablets V-Cillin K ond for V-C K, Pediatric, the usual dosage ranges from 125 mg. (200,000 un three times a day to 500 mg. (800,000 units) every four hours. For fants, the daily dosage may be 50 mg. per Kg of body weight divic into three doses.

Beta-hemolytic streptococcus infections without associated ba remia may be treated with 200,000 to 400,000 units three times a d Therapy should be continued for a minimum of ten days to prevent velopment of rheumatic fever and/or other serious complicotions. D age for routine streptococcus prophylaxis in patients with a history rheumatic fever or congenital heart disease may be 200,000 units or or twice daily. When such patients undergo tonsillectomy, tooth extr tion, or other minor surgery, the prophylactic dose should be 500,(units every six hours given two days prior to surgery and for two d postoperatively. If oral medication is not feasible on the day of s gery, parenteral therapy should be considered Mild to moderat severe pneumococcus pneumonia has been treated effectively v 250 mg. every six hours.

In staphylococcus infections, 400,000 units or more should be gi every six to eight hours in conjunction with indicated surgical pro dures.

For gonorrhea in males, 500 mg. (800,000 units) every six hours three doses may be employed; in females, 500 mg. every four hours six doses are recommended. Patients with a suspected lesion of syph should have a dark-field examination before receiving penicillin c monthly serologic tests for a minimum of three months.

How Supplied: Tablets V-Cillin K, U.S.P., 125 mg. (200,000 units) bottles of 50 and 100; 250 mg. (400,000 units), and 500 mg. (800,(units) in bottles of 24 and 100.

V-Cillin K, Pediatric, for Oral Solution, 125 mg. (200,000 units) 5 cc. of solution, in 40, 80, and 150-cc.-size packages.

Additional information available to physicians upon request. Eli Lilly and Company, Indianapolis, Indiana 46206.

Lilly

70(

Look how many ways

Thorazine®

brand of

chlorpromazine

can help

	Tranquilizer	Potentiator	Antiemetic
Agitation	●		
Alcoholism	●		●
Anxiety	●		
Cancer patients	●	●	●
Severe neurodermatitis	●		
Drug addiction withdrawal symptoms	●		●
Emotional disturbances (moderate to severe)	●		
Nausea & vomiting	●		●
Neurological disorders	●		
Obstetrics	●	●	●
Pain	●	●	●
Pediatrics	●	●	●
Porphyria	●	●	
Psychiatric disorders	●		
Hiccups—refractory	●		
Senile agitation	●		
Surgery	●	●	●
Tetanus	●	●	

'Thorazine' is useful as a specific adjuvant in the above named conditions.

The following is a brief precautionary statement. Before prescribing, the physician should be familiar with the complete prescribing information in SK&F literature or *PDR*. *Contraindications:* Comatose states or the presence of large amounts of C.N.S. depressants. *Precautions:* Potentiation of C.N.S. depressants may occur (reduce dosage of C.N.S. depressants when used concomitantly). Antiemetic effect may mask other conditions. Possibility of drowsiness should be borne in mind for patients who drive cars, etc. In pregnancy, use only when necessary to the welfare of the patient. *Side Effects:* Occasionally transitory drowsiness; dry mouth; nasal congestion; constipation; amenorrhea; mild fever; hypotensive effects, sometimes severe with I.M. administration; epinephrine effects may be reversed; dermatological reactions; parkinsonism-like symptoms on high dosage (in rare instances, may persist); weight gain; miosis; lactation and moderate breast engorgement (in females on high dosages); and less frequently cholestatic jaundice. Side effects occurring rarely include: mydriasis; agranulocytosis; skin pigmentation, lenticular and corneal deposits (after prolonged substantial dosages).

For a comprehensive presentation of 'Thorazine' prescribing information and side effects reported with phenothiazine derivatives, please refer to SK&F literature or *PDR*.

Smith Kline & French Laboratories SK&F

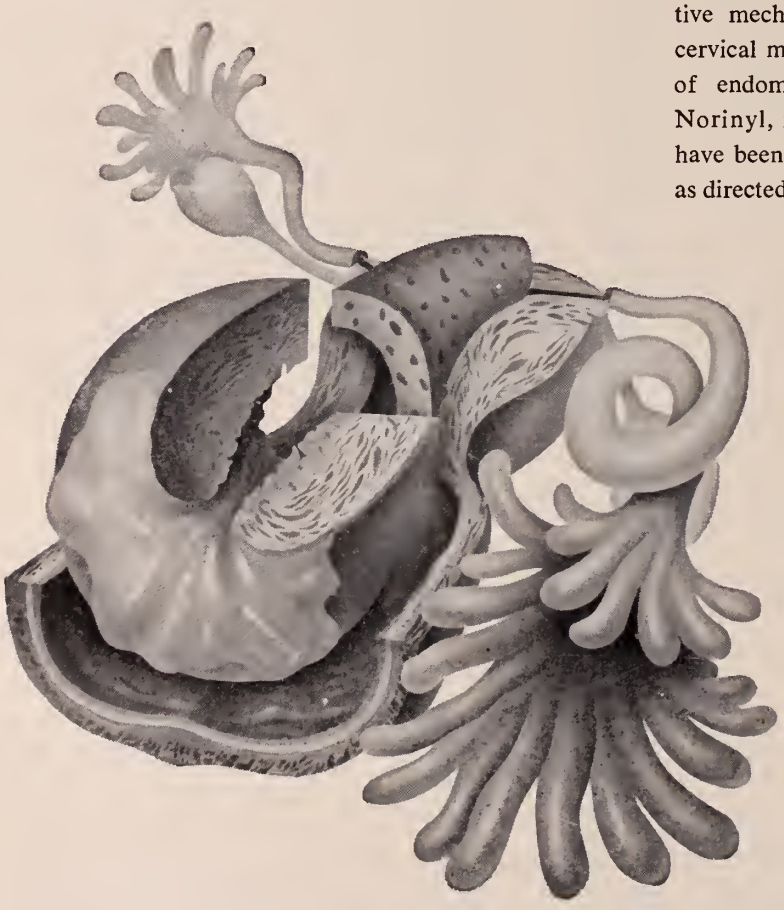
Norinyl® tablets
(norethindrone 2 mg. c mestranol 0.1 mg.)

for multiple contraceptive action that has produced a record of unexcelled effectiveness

inhibition of ovulation by means of 2 time-proved hormonal agents

production of a cervical mucus hostile to sperm motility and vitality

creation of an endometrium unreceptive to egg implantation



no unplanned pregnancies

Norinyl provides multiple action for maximum assurance of success. It does not depend on ovulation inhibition alone for contraceptive effectiveness. The mechanism of action of combined hormonal therapy results in ovulation inhibition reinforced by other protective mechanisms, including a hostile cervical mucus[1-13] and an acceleration of endometrial changes.[1-3,7-16] With Norinyl, no unplanned pregnancies have been reported to date when used as directed.

plus important supportive benefits that help her through those critical early months of oral contraception

low incidence of side effects

Low incidence of BTB and spotting, nausea and amenorrhea tends to minimize side effect problems and increases patient cooperation.

no confusion about dosage

An unbreakable "confusionproof" package makes it easy to adhere to prescribed dosage schedule: individually sealed tablets numbered from 1 through 20 *plus* monthly calendar record enables patient to double-check dosage intake by day and corresponding tablet number.



Contraindications: Thrombophlebitis or pulmonary embolism (current or past). Existing evidence does not support a causal relationship between use of Norinyl and development of thromboembolism. While a study which was conducted does not resolve definitively the possible etiologic relationship between progestational agents and intravascular clotting, it tends to confirm the findings of the Ad Hoc Advisory Committee appointed by the Food and Drug Administration to review this possibility. Cardiac, renal or hepatic dysfunction. Carcinoma of the breast or genital tract. Patients with a history of psychic depression should be carefully studied and the drug discontinued if depression recurs to marked degree. Patients with a history of cerebral vascular accident.

Warning: Discontinue medication pending examination if there is sudden partial or complete loss of vision, or if there is a sudden onset of proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn.

Precautions: By May 1963, experience with norethindrone 2 mg.—mestranol 0.1 mg. had extended over 24 months. Through miscalculation, omission or error in taking the recommended dosage of Norinyl, pregnancy may result. If regular menses fail to appear and treatment schedule has not been adhered to, or if patient misses two menstrual periods, possibility of pregnancy should be resolved before resuming Norinyl. If pregnancy is established, Norinyl should be discontinued during period of gestation since virilization of the female fetus has been reported with oral use of progestational agents or estrogen. When lactation is desired, withhold Norinyl until nursing needs are established. Existing uterine fibroids may increase in size. In metabolic or endocrine disorders, careful clinical preevaluation is indicated. A few patients without evidence of hyperthyroidism had elevated serum protein-bound iodine levels, which in the light of present knowledge, does not necessarily imply hyperthyroidism. Protein-bound iodine increased following estrogen administration. Bromsulphalein retention has occurred in up to 25% of patients without evidence of hepatic dysfunction. Studies from 24-hour urine collections have shown an increase in aldosterone and 17-ketosteroids and decrease in 17-hydroxycorticoid levels. Thus, Norinyl should be discontinued prior to and during thyroid, liver or adrenal function tests. Because progestational agents may cause fluid retention, conditions such as epilepsy, migraine and asthma require careful observation. Thus far no deleterious effect on pituitary, ovarian or adrenal function has been noted; however, long-range possible effect on these and other organs must await more prolonged observation. Norinyl should be used with caution in patients with bone, renal or any disease involving calcium or phosphorus metabolism.

Side Effects: Intermenstrual bleeding; amenorrhea; symptoms resembling early pregnancy, such as nausea, breast engorgement or enlargement, chloasma and minor degree of fluid retention (if these should occur and patient has not strictly adhered to medication plan, she should be tested for pregnancy); weight gain; subjective complaints such as headache, dizziness, nervousness, irritability; in a few patients libido was increased. In a total of 3,090 patients, 2.2% discontinued medication because of nausea.

NOTE: See sections on contraindications and precautions for possible side effects on other organ systems.

Dosage and Administration: One Norinyl tablet orally for 20 days, commencing on day 5 through and including day 24 of the menstrual cycle. (Day 1 is the first day of menstrual bleeding.)

Availability: Dispensers of 20 and 60 tablets; bottles of 100.

References: 1. Council on Drugs. JAMA 187:664 (Feb. 29) 1964 2. Bryans, F. E.: Canad Med Ass J 92:287 (Feb. 6) 1965. 3. Goldzieher, J. W.: Med Clin N Amer 48:529 (Mar.) 1964. 4 Cohen, M. R.: Paper presented at Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965. Reported in Med Sci 16:26 (Nov.) 1965. 5. Hammond, D. O.: Ibid. 6. Rice-Wray, E., Goldzieher, J. W., and Aranda-Rosell, A.: Fertil Steril 14:402 (Jul.-Aug.) 1963. 7. Goldzieher, J. W., Moses, L. E., and Ellis, L. T.: JAMA 180:359 (May 5) 1962. 8. Kempers, R. O.: GP 29:88 (Jan.) 1964 9. Tyler, E. T.: JAMA 187:562 (Feb. 22) 1964. 10. Rudel, H. W., Martinez-Manautou, J., and Maqueo-Topete, M.: Fertil Steril 16:158 (Mar.-Apr.) 1965. 11. Flowers, C. E., Jr.: N Carolina Med J 25:139 (Apr.) 1964. 12. Goldzieher, J. W.: Appl Ther 6:503 (June) 1964. 13. The Control of Fertility. Report adopted by the Committee on Human Reproduction of the American Medical Association. JAMA 194:462 (Oct. 25) 1965. 14. Flowers, C. E., Jr.: JAMA 188:1115 (June 29) 1964. 15. Merritt, R. I.: Appl Ther 6:427 (May) 1964. 16. Newland, D. O.: Paper presented at Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965. Reported in Med Sci 16:26 (Nov.) 1965.

norethindrone—an original steroid from

SYNTEX

LABORATORIES INC PALO ALTO, CALIF

Norinyl® tablets

(norethindrone 2 mg. c mestranol 0.1 mg.)

for multiple contraceptive action

Night Leg Cramps...Frequent Bedfellow
In Diabetes,[1] Arthritis,[2] and Peripheral Vascular Disorders[2]



now...specific therapy for night leg cramps

QUINAMM™

Consistently effective, QUINAMM provided complete relief in 94% of 200 patients studied, many of whom were severe cases refractory to other medication.[3] Your prescription for one tablet at bedtime often controls painful night cramps with the initial dose . . . helps restore restful sleep.

QUINAMM Prescribing Infarmatian: Composition: Eoch white, beveled, compressed toblet contoins: Quinine Sulfote 4 groins (250 mg.) ond Aminophylline 3 groins (200 mg.). **Precautions:** Aminophylline moy produce intestinol cromps in some instonces, ond quinine moy produce symptoms of cinchonism, such os tinnitus, dizziness, ond gostrointestinol disturbonce. Discontinue use if ringing in the eors, deofness, skin rosh, or visuol disturbonces occur. **Contraindication:** QUINAMM is controindicoted in pregnoncy becouse of its quinine content. **Dosage:** One toblet upon retiring. Where necessory, dosoge moy be increosed to one toblet following the evening meol ond one toblet upon retiring. **Supplied:** Bottles of 100 ond 500 toblets. **Caution:** Federol low prohibits dispensing without prescription.

References: 1. Shumon, C.: Am. J. Med. Sci., 225:54, 1953. 2. Perchuk, E., et ol.: Angiology, 12.102, 1961. 3. Rowls, W., et ol.: Med. Times, 87.818, 1959.

WALKER *Laboratories* Division of Richardson-Merrell Inc., Mount Vernon, New York 10551

winter 1966

DORSEY Season

A journal within a journal published quarterly in the interests of better medicine by Dorsey Laboratories, a division of The Wander Company, Lincoln, Nebraska. Address communications to Raymond C. Pogge, M.D., Director of Medicine.



this issue: the nose as a shock organ

the nose as a shock organ

by Charles J. Shagoury, M.D., Chelmsford, Massachusetts



"Is it a cold, hay fever, or has he been reprimanded by his boss?" Occasionally, you will ask yourself this question when confronted by a patient with abrupt onset of rhinorrhea, nasal obstruction, and sneezing. Usually the history will elucidate the problem, but examination of the nose will often provide valuable clues to the correct diagnosis.

The nose is a shock organ in a double sense. First, it is in the nose that the confrontation takes place with the surrounding atmosphere. For twenty-four hours a day, the nose must meet the varying challenges of the inspired air, containing perhaps noxious chemicals, dust, dirt, bacteria, viruses, fungi, and industrial pollutants of all kinds, and render it clean, virtually sterile, and fit for the sensitive alveoli of the lungs. Whatever the temperature or humidity of the atmosphere, the nose must transmit it to the lungs at approximately 98°F, and with a humidity of approximately 40%.[1]

Second, in particularly susceptible patients, the nose acts as a shock organ in a manner totally unrelated to its normal function. Persons with hay fever respond to ordinarily harmless materials by extreme nasal congestion, with marked rhinorrhea and violent spasms of sneezing. In some patients, exposure to threatening or disagreeable agents, or situations involving mental conflict may result in a reaction which is exclusively nasal, with swelling of the turbinates, and marked hypersecretion.[2]

Nasal symptoms usually result when the nose seeks to perform its function of getting rid of noxious and dangerous elements in the atmosphere, and prevent their admission to the trachea and lungs. Small particles are removed by the mucous coating which blankets the nasal passages. This mucous blanket contains a bacteriostatic agent, lysozyme, which destroys most air-borne bacteria.[3] The mucinous content renders the surface sticky, causing dusts and small particles to adhere. It has been postulated that this process is rendered more effective through adsorption because of a surface electrical charge on the nasal mucosa.[4] The cilia then sweep the particulate matter to the pharynx. The nose can prevent entrance into the lungs of particles as small as three microns in diameter, but smaller particles elude the nasal barrier. Most bacteria causing respiratory infections are one to three microns in diameter, but since they usually are inhaled in clumps, they are efficiently removed as a rule. Viruses, which are of the order of 1/1000 of this size, are less efficiently dealt with, unless they occur in very large aggregates.[5]

The nose will react in a more or less similar manner, whatever the nature of the offending agent, whether it be an irritant chemical, virus, pollen, or distasteful emotional situation. In acute coryza, the most characteristic sign is a profuse watery discharge. The volume of secretion may rise from practically nothing to nearly 60cc in twenty-four hours.[6] The mucous membrane is reddened and engorged, while the turbinates are markedly swollen. After the first day or two, the secretion becomes thicker, yellowish, and more difficult to expel. The surface cells are largely destroyed, contributing to the copious discharge, which now also contains numerous inflammatory cells which have migrated to the area. Gradually, over a period of a few days, or a week, the flood abates, the swelling and redness subside, and the nasal epithelium resumes a healthy appearance.

Repeated attacks of rhinitis, particularly if there is an underlying element of obstruction, may result in chronic rhinitis. The mucous membrane is constantly swollen and reddened. Sticky, mucopurulent secretions are a continuous feature, and the glandular elements are hypertrophied. Commonly, the mucosal surface takes on an irregular, rounded "mulberry" appearance, and nasal passages are occluded by the swollen turbinates and redundant mucosa.

While all of us are susceptible to colds, the victim of hay fever, or allergic rhinitis, displays a marked nasal reaction to materials in the air which leave his associates unaffected. In such a patient, the nasal mucosa has become an allergic "shock" organ. Contact with the nasal allergen causes local release of histamine, with vasodilatation, increased vascular permeability, and severe nasal congestion, similar to the "wheal" and "flare" reactions in the skin, when the epidermis is the allergic shock organ. While we eagerly await the coming of spring, the hay fever sufferer dreads the blooming season, whose invisible pollens are poisons to his sensitive nose. His neighbor's cat or dog may provoke paroxysms of uncontrollable sneezing. In some cases a specific allergen is not identified, but the triad of rhinorrhea, nasal obstruction, and sneezing is present.[7] The nose in these cases shows a pale, boggy, edematous mucosa, with a thin mucoid secretion. The mucous membrane shows extreme retractility to 1% cocaine or ephedrine. If the patient has medicated himself prior to examination, the nasal passages may appear abnormally patent, or show exaggerated congestion due to rebound reaction. The secretion may show a large number of eosinophils particularly after an attack of sneezing or rhinorrhea. Touching the mucosal surface, especially of the inferior turbinate, leaves an indentation, showing that the swelling is due to stasis and edema, rather than actual hyperplasia of the mucous membrane as in chronic hypertrophic rhinitis. Though the pale swollen mucosa is the hallmark of allergic rhinitis, as usually seen by the physician, exposure of allergic subjects to their known allergens results in a brief hyperemic phase, followed by pallor and edema.[8]

In the later stages of allergic rhinitis, the chronic edema of the mucous membrane results in the formation of polyps, clusters of grape-like masses hanging from the roof of the nose, with a pale glistening surface, contributing significantly to the sense of nasal obstruction and oppression.

A large group of patients show symptoms of nasal congestion when confronted by adverse life situations.[9] In these unfortunate persons, anxiety, frustration, and resentment are often accompanied by a runny nose and nasal obstruction. Lacrimation adds to the nasal stuffiness. This autonomic response, mediated by the parasympathetic nervous system, may be part of a general parasympathetic reaction, or may possibly represent in part, a symbolic effort to wash out and crowd out the offending situation.

Nasal congestion may also occur in some patients at times of sexual stimulation, and in women during menstruation and pregnancy, even to the point of epistaxis.[10] The relationship is obscure; castration results in atrophy of the nasal glands, and their action is inhibited by the hormones of the hypophysis and the thyroid.[11] The nose may be the shock organ in drug therapy. The nose may also bear the brunt of industrial stress, in those who work in a hot dry atmosphere, or those exposed to acid fumes, or irritating dusts. As the air in our cities is increasingly polluted by exhaust fumes, and industrial irritants, whole urban populations may suffer from chronic nasal and respiratory symptoms.

Of course, nasal reactions are not just infectious, or allergic, or emotional. Particularly in the chronic sufferers, there is an interdependence of all three. Death of a relative, or other psychic shock can pre-

(concluded on following page)

it's a comforting thing to know



For postnasal drip, clogged ears and stuffed and runny noses

Triaminic® timed-release tablets

Each timed-release tablet contains:

Phenylpropanolamine hydrochloride	50 mg.
Pheniramine maleate	25 mg.
Pyrilamine maleate	25 mg.

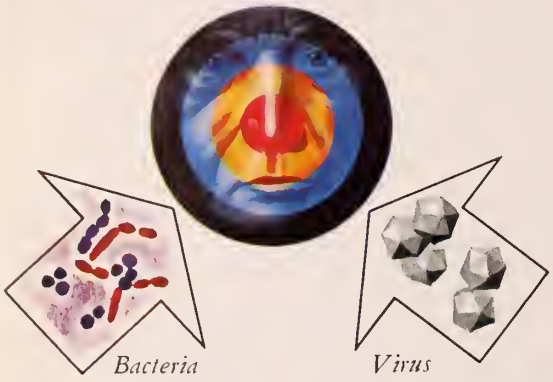
keep patients comfortable 'round the clock. 24-hour decongestion on just a single tablet dosed morning, mid-afternoon and at bedtime. Patients regain senses and can breathe, smell and taste again.

Triaminic. Isn't that a comforting thing to know?

Side effects: Occasional drowsiness, blurred vision, cardiac palpitations, flushing, dizziness, nervousness or gastrointestinal upsets. Precautions: The patient should be advised not to drive a car or operate dangerous machinery if drowsiness occurs. Use with caution in patients with hypertension, heart disease, diabetes or thyrotoxicosis.

(Advertisement)

cipitate an attack of rhinorrhea in hay fever sufferers.[12] Others develop attacks of vasomotor rhinitis following change in temperature, chilling, or exposure to the sun, or simply warm bedclothes.

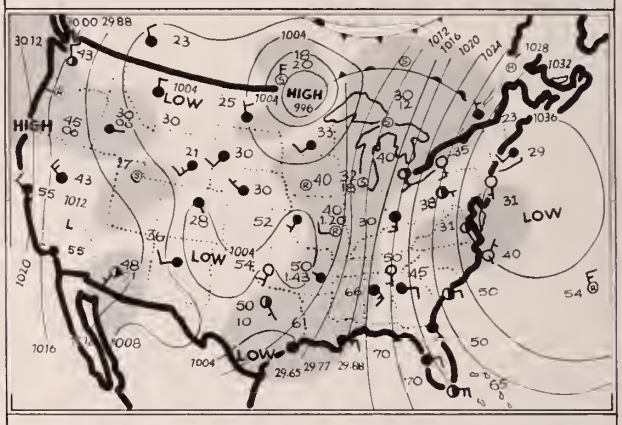


The complex interplay of allergy and infection is largely unclear. Allergy to the viruses and bacteria which cause infection has been postulated, but is difficult to demonstrate. The swollen obstructed allergic nose is more susceptible to infection. At the same time, infection often precedes or precipitates an allergic attack. Exposure of a susceptible patient to an allergen can activate latent virus organisms leading to infection.[13] This "jolt" reaction represents a summation of an allergen and a virus leading to symptoms in the nose as a shock organ, which neither could have produced alone. In childhood, repeated attacks of bronchitis and colds may be inflammatory reactions to an allergen, or precipitated by exposure to an allergen. These children may later develop typical allergic rhinitis. On the other hand, children with typical allergic histories, eczema, asthma, and allergic familial backgrounds, may later develop typical infectious rhinopathies. Skin tests in such patients are usually positive.

Nasal reactions are part of the systemic response of the patient to an unwelcome stimulus. In cases of respiratory infection and exposure to atmospheric irritants, the reactions are useful, and to some extent desirable. They are usually self-limited, disappearing within a few days, or upon removal of the provoking agent. Here the distressing symptoms can be ameliorated with appropriate decongestant agents, or, in the case of severe or complicated respiratory infections, antibiotics may be given, with reasonable confidence of a cure. On the other hand, when nasal reactions are the peculiar response of an individual to an allergen, or to an undesirable situation, they serve no useful purpose. The nose here is a shock organ in a stressful situation, but can furnish no response of value. It merely causes the patient symptoms which add to his problems. In these cases, symptomatic treatment is of great benefit, but often the underlying faulty pattern of response cannot be altered. Such a patient may literally be considered to be paying his way in life "through the nose."

References 1. Maures, E. R., Mendez, F. C., Jr., and Hilsinger, R. C.: Importance of the Nose in Filtering and Humidifying Inspired Air. Ohio State Med. J. 61:41-42. 2. Holmes, T.,Goodell H., Wolf, S., and Wolff, H. G.: The Nose. Springfield, Ill. 1950 Charles C. Thomas p. 10 ff. 3. Boies, L. H. R.: Fundamentals of Otolaryngology. Phila. W. B. Saunders Co. 1954 p. 160. 4. Proetz, A. W.: Applied Physiology of the Nose. St. Louis 1941 Zimmerman-Petty Co. p. 6. 5. Spikard, A.: The Common Cold, A Survey. Disease of the Chest 48:545-49. Nov. 1965. 6. Ibid. 7. Bourdial, J.:Role of Allergy in Upper Respiratory Tract Infection. Europa Med. Paris 4:75-80 1965. 8. Holmes, et al. The Nose p. 22. 9. Ibid. p. 320. 10. Proetz, A. W. op. cit. p. 321. 11. Ibid. p. 320. 12. Rees, Linford J.: Physiogenic and Psychogenic Factors in Vasomotor Rhinitis. J. Psychosomatic Research 8:101 Sept. 1964. 13. Horesh, A. J.: Allergy and Infection. An Allergy 23:621-35 Dec. 1965.

Weather Forecast Throughout the Nation



RAIN TURNING TO SNOW, INCREASING WINDS AND DROPPING TEMPERATURES FOLLOWED BY COUGH, CONGESTION AND PAIN

Tussagesic® provides up to 24-hour coverage of the tough cold with a single timed-release tablet dosed morning, midafternoon and at bedtime. Coughs are broken up, runny and stuffed noses are cleared and pain is relieved.

Each Tussagesic® timed-release tablet contains:

Triaminic® (phenylpropanolamine hydrochloride 25 mg.; pheniramine maleate 12.5 mg.; pyrilamine maleate 12.5 mg.)	50 mg.
Dextromethorphan hydrobromide	30 mg.
Terpin hydrate	180 mg.
Acetaminophen	325 mg.

Side effects: Occasional drowsiness, blurred vision, cardiac palpitations, flushing, dizziness, nervousness or gastrointestinal upsets. Precautions: Patient should not drive a car or operate dangerous machinery if drowsiness occurs. Except under professional care, do not give to patients under 12 yrs. or those who have persistent cough, high fever, heart or thyroid disease, hypertension or diabetes or use for more than 10 days.

(Advertisement)

Estomul does what standard anticholinergics fail to do—it provides a continuous climate for ulcer healing, eliminating the peaks and valleys of ordinary therapy. It is a comprehensive formulation providing sustained antisecretory effect on gastric activity. A recent study[1] reported a 56% satisfactory response with a maintenance schedule of Estomul in patients refractory to all previous medication. In less difficult peptic ulcer patients, a second study[2] noted a 94% satisfactory response. Both studies confirmed this clinical improvement radiologically. And both reported unusually prolonged reduction of basal secretion. With a maintenance course of Estomul therapy you can provide this continuous climate for healing in your own peptic ulcer patients.

A continuous climate for ulcer healing

(not simply episodic reduction of secretion or motility)

Estomul®

Tablets

Each swallow tablet contains: orphenadrine hydrochloride, 25 mg.; bismuth aluminate, 25 mg.; magnesium oxide, 45 mg.; aluminum hydroxide—magnesium carbonate (as co-precipitate), 500 mg.

Good-Tasting Liquid

Each tablespoon (15 cc.) contains: orphenadrine hydrochloride, 25 mg.; bismuth aluminate, 50 mg.; aluminum hydroxide—magnesium carbonate (as co-precipitate), 918 mg.

Dosage: 1 or 2 tablets or 1 or 2 tablespoons 3 times daily.

Supplied: In bottles of 100 tablets or 12 fluid oz..

Side Effects: Doses in excess of 6 tablets or 6 tablespoons daily may produce dryness of mouth or blurring of vision. Other possible side actions include: tachycardia, palpitation, urinary hesitancy or retention, dilatation of the pupil, increased ocular tension, weakness, nausea, vomiting, headache, dizziness, constipation, drowsiness, urticaria and other dermatoses. Infrequently, an elderly patient may experience some degree of mental confusion.

Contraindicated: In glaucoma, pyloric or duodenal obstruction, atenosing peptic ulcers, prostatic hypertrophy or obstruction at the bladder neck, achalasia and myasthenia gravis.

References: 1. McHardy, G. G., Judice, R. C., McHardy, R. J., and Cradic, H.: Southern Med. J. 59:459 (April) 1966. 2. Slanger, A.: Western Med. 6:205, 1965.

Riker Laboratories · Northridge, California 91324



When thiazide or reserpine alone won't keep



Establish and maintain early, more decisive control of blood pressure

DIUTENSEN®-R

Cryptenamine 1.0 mg.* Methyclothiazide 2.5 mg. Reserpine 0.1 mg.

When blood pressure won't stay down despite initial therapy—when complaints of headache, fatigue or dizziness are often voiced—it may be time for a change to DIUTENSEN-R.

DIUTENSEN-R is thiazide and reserpine *plus* cryptena*mine*—a rational, comprehensive therapy to help establish and maintain early, more decisive control of blood pressure.

The cryptenamine in DIUTENSEN-R helps improve normal vasodilating reflexes while the thiazide and reserpine components maintain vasorelaxant, sedative, and saluretic benefits. Cryptenamine lowers pressoreceptor reflex thresholds (which may be abnormally high in hypertension)—"resets" pressoreceptors to function at more nearly normotensive levels.

Early, more decisive control with DIUTENSEN-R helps secure continuing benefits — may reduce or even obviate the need for poorly tolerated drugs later in therapy.

"...quite apart from the problem of vascular damage, there arises a possibility of virtual 'cure' or remission of hypertension when treatment is early, i.e., before too many other secondary pressor systems have entered into the disequilibrium of pressor control, and when it is adequately suppressive."

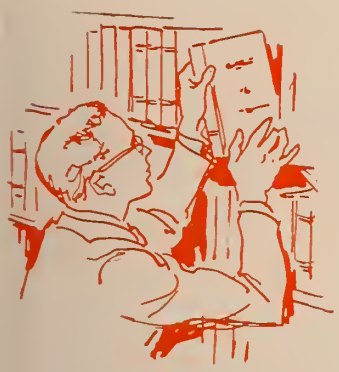
Corcoran, A. C.: The choice of drugs in the treatment of hypertension. In: Drugs of Choice 1966-67, W. Modell, Ed., St. Louis, C. V. Mosby Company, 1966, p. 417.

Indications: DIUTENSEN-R may be employed in all grades of essential hypertension. **Dosages:** Usual dose is 1 tablet twice daily, at morning and evening meals. However, adjustment of dosage to suit individual circumstances may be required. Please refer to package insert for full particulars. **Side effects and precautions:** The side effects observed with patients on DIUTENSEN-R have been of a mild and nonlimiting nature. These include occasional urinary frequency, nocturia, nasal congestion, muscle cramps, skin rash, joint pains due to gout symptoms and nausea and dizziness which have been reported for the individual components. Most of these symptoms disappear while the drug is continued at the same or lower dosage level. The concomitant use of digitalis and DIUTENSEN-R may increase the possibility of digitalis-like intoxication. If there is evidence of myocardial irritability (extrasystoles, bigeminy or AV block), dosage of DIUTENSEN-R should be reduced or discontinued. Nocturia in patients with marginal cardiac status and salt and fluid retention can be effectively controlled by limiting the time of administration to early afternoon. DIUTENSEN-R should not be used in patients with a known intolerance to reserpine. Package inserts furnish a complete summary of recommended cautions related to each of the ingredients of DIUTENSEN-R.

*As tannate salts equivalent to 130 Carotid Sinus Reflex Units.

NEISLER UNION CARBIDE NEISLER LABORATORIES, INC. • DECATUR, ILLINOIS
SUBSIDIARY OF UNION CARBIDE CORPORATION


ECONOMICAL!
CORDRAN®
FLURANDRENOLONE
Half Strength
Lilly
cream and ointment
Additional information available to physicians upon request.
Eli Lilly and Company, Indianapolis, Indiana 46206.
600811



Research at the University of Miami School of Medicine

The University of Miami School of Medicine is grateful to the editors of the Journal of the Florida Medical Association for this opportunity to summarize the research being conducted at the School.

It frequently is said that a modern medical school has three functions: teaching, research and patient care. Although a medical school certainly has these responsibilities, the statement is misleading to the extent that it implies that they are separate functions. The advancement of knowledge through research and the application of knowledge in the case of patients are amply justified for their own sake. Their roles in a medical school, however, and the extent to which they can be justified in a medical school setting, are closely related to the contribution they can make to the school's teaching program. It is important that the patient care responsibilities and the research program of the medical school be developed and handled in such a way that they contribute to and not detract from the school's programs of undergraduate, postgraduate and continuing education. I believe this is true of the research program of the University of Miami School of Medicine, in which we take great pride.

In the space available it is not possible to do much more than list the various research projects underway. I believe it is possible, however, to gain from this issue of the Journal some idea of the scope of the School's research activities and the interests of individual faculty members.

HAYDEN C. NICHOLSON, M.D.
DEAN

Department of Anatomy

HAYDEN C. NICHOLSON, M.D.

Dr. Albina Yakaitis is conducting a series of leukemia studies, one of which is to establish the presence of abnormally distinct chromosomes ("markers") in four different rat leukemias.

Abnormal chromosomes have been found in two acute rat leukemias. These may or may not be the primary cause of the disease. Further studies are underway to determine whether a viral agent may be involved, and the effects of chemotherapeutic agents on these "marker" chromosomes.

Dr. Yakaitis has noted that while certain rat leukemias are 100% transmissible in Fischer rats, when given to Wistar rats some of the animals recover. Tumors form in the Wistar rats; white blood counts increase beyond normal limits, but, in time, the tumors disappear in some animals and blood counts return to normal. Studies will be conducted to learn whether these "recovered" animals will show greater resistance to future leukemic innoculations and whether material (serum, plasma, et cetera) from such recovered animals convey some protection to susceptible animals such as Fischer rats.

Other studies include analysis of human blood dyscrasias for chromosomal aberration and whether effective chemotherapeutic agents alter the genetic apparatus of rat leukemia R3149.

A temporal spacial study is also being made of acute lymphocytic leukemia in relation to seasonal occurrence and geography. Birth rank and maternal age are being investigated in cases of lymphocytic leukemia and neuroblastoma.

Elucidating factors underlying the developmental physiology of the embryonic heart is the prime interest of Dr. George H. Paff. Microtechniques developed in his laboratory have permitted him to record the developmental history of the electrocardiogram from the first appearance of a primitive wave to the definitive adult complex using chick embryos.

Dr. Paff's prime projects are to prove that the enzyme acetylcholinesterase and its substrate acetylcholine must be present and free to act if the heart is to be able to originate its own impulse—this is in the embryo before nerves grow into the heart, to analyze step-by-step the developing ability of the heart to block, and to determine on the basis of blood pressure recordings the time when heart valves become functionally competent.

Recently, he has become interested in the fact that many of the developmental steps indicated can be interrupted and actually reversed by toxic substances in common use.

In 1961, Dr. Frederic D. Garrett initiated the development of a programed text for teaching neuroanatomy. It essentially involves writing, testing on students, rewriting, retesting, and so forth. The fifth rewrite is approaching completion. The basis for each rewrite is established by observing the response of the freshman medical class each winter, followed by work with individual students, mostly graduate students from psychology, during the spring.

Dr. Garrett is also making an analysis of cell populations in the central nervous system. Measurements produce various numerical values including an index of cross sectional area of nerve cell bodies, absolute and relative number of cells and length/breadth quotients as indices of cell shape. The method is being applied in combination with traditional experimental degeneration techniques to an analysis of the anatomy of the hypothalmus.

Research projects concerned with the morphology and functional activity of bone marrow stem cells is the major interest of Dr. Irwin Berman. The morphology of the stem cell has never been clearly delineated and the identity of this cell is being approached by electron microscopy. Functional studies of the stem cell are directed towards determining conditions which affect the capacity of the cell to prevent irradiation-induced leukemia and its ability to differentiate into the different types of blood cells.

Department of Anesthesiology

FRANK MOYA, M.D.

Dr. Jerome H. Modell has continued studies of the pathophysiology of drowning. His team is determining the changes that occur subsequent to immersion. Animals are subjected to chlorinated distilled water, distilled unchlorinated water or normal saline in an amount equal to a multiple of their controlled tidal volume. In all three types of aspirated fluid an identical picture was observed of acute asphyxia with hypoxemia, hypercapnia and acidosis.

Dr. Modell and Dr. Samuel Giammona, Pediatrics, are studying the pulmonary surfactant changes following drowning. Preliminary results indicate that total immersion in fresh water destroys or inactivates the normal surfactant and surface tension properties of the lung. Such is not the case with sea water or physiological saline solution.

With Dr. Joseph Davis, Medical Examiner of Dade County, Dr. Modell is extending his studies to human victims of drowning, correlating the biochemical changes in the blood of drowning and near-drowning victims with the electrolyte content of the water aspirated.

Dr. Eugene L. Nagel has continued his work with the bottle-nose dolphin, Tursiops truncatus, at the Communication Research Institute and Jackson Memorial Hospital. Cardiopulmonary and hemodynamic function studies are of interest because these animals have developed specialized physiological adaptations for diving and life in the sea. In collaboration with colleagues of both institutions, Dr. Nagel has designed and carried out certain essential preliminary studies including the measurement of cardiac output, heart chamber pressures, valvular pressure gradients, heart chamber oxygen saturation and blood chemistry and volume studies. Angiographic visualization of the heart chambers and regional vascular beds has also been accomplished.

Dr. Oscar Farmati, Dr. A. Freeman, Dr. M. Bovin and Dr. Frank Moya recently developed a relatively simple method of measuring the central retinal artery blood pressure during anesthesia by means of an ordinary ophthalmoscope and pressure exerted through an ophthalmodynamometer.

Dr. S. Munach and Dr. Modell are engaged in a retrospective study of postoperative cardiac complications secondary to general anesthesia. They are primarily interested in determining the incidence at Jackson Memorial Hospital of patients in whom myocardial infarctions develop within six weeks of general anesthesia.

Drs. Moya and Smith published a comprehensive review of the factors involved in the uptake, distribution and placental transport of drugs and anesthetics in the obstetric patient. Based on the known alterations in cardiopulmonary function that take place during pregnancy, it was predicted, with reasonable confidence, that the uptake of inhalation agents is significantly accelerated.

To determine the significance of postoperative pulmonary complications and their contribution to morbidity and mortality at Jackson Memorial Hospital, Drs. Modell and Moya analyzed the charts of patients who died within six weeks of anesthesia and surgery during a five year period; 39% of 1,680 patients. Choice of anesthesia per se and region of operation did not prove to be important factors in influencing the incidence of postoperative pulmonary complications.

Drs. Smith, Usubiaga and Clarence Harris have embarked on multiple studies of the physiological and pathological effects of hyperbaric oxygen therapy. Newborn mice were studied for tolerance to the toxic effects of hyperbaric oxygen toxicity and its relationship to chronological age. With increasing age, from the day of birth, an initially high tolerance to the toxic effects of hyperbaric oxygen gradually decreased until the mice reached adult oxygen toxicity tolerance by the seventh or eighth week of life. This study has practical significance in that it seems newborn

animals can withstand higher oxygen pressures for longer duration during resuscitation than can adults of the same species.

The effects of hyperbaric oxygen on the retina of newborn mice were studied. The animals were sacrificed and a gross examination failed to reveal any signs of blindness or hypervascularization. This work is of practical importance since hyperbaric oxygen therapy would not be feasible in humans if exposure to increased pressure of oxygen also incurred the hazard of retrolental fibroplasia.

Two other studies under way are concerned with the beneficial effects of hyperbaric oxygen in asphyxiated newborn animals and the protective effect of steroids against hyperbaric oxygen toxicity in young adult guinea pigs.

With Dr. Denis Cavanagh, Obstetrics and Gynecology, Dr. Smith investigated the use of hyperbaric oxygen therapy in endotoxin shock during pregnancy. It was found that animals treated with hyperbaric oxygen had a decreased tolerance for endotoxin shock and appeared to be harmed by the addition of oxygen under high pressure.

Drs. Davidson, Modell and Moya completed a study of the iatrogenic Addisonian and his response to surgery. The purpose was to determine the adequacy of adrenal response to anesthesia and surgery in the patient who had received a steroid. An increased incidence of complications that could be attributed to hypoadrenal function was found in adults as compared to children. Another important factor was time elapsed since the last administration of a steroid.

The Departments of Anesthesiology, Psychiatry and the Biometrics Laboratory of the University of Miami are collaborating in a study of the physiological effects of electroconvulsive therapy. The project physicians are Drs. Moya and Usubiaga and Betty Vestal, Anesthesiology; Drs. Goldstein and Gustafson, Psychiatry, and Dr. Dean Clyde, Director of the Biometrics Laboratory. The specific aims are to study the cardiovascular, respiratory and ocular changes that occur in humans before, during and after ECT; to study and compare changes in catecholamine levels of jugular venous bulb blood samples and cerebral spinal fluid samples; to correlate changes in catecholamine levels with psychiatric changes observed and measured by the Klett-Lorr, Burdock and Clyde mood scales, and to study the incidence of subjective complaints following ECT and to correlate with the ECT method used and anesthesiological effects observed.

The teratogenic effects of drugs and anesthetic agents are being studied by Drs. Smith, Usubiaga, and Kenneth Glasser. The teratogenic and toxic effects of oxygen on the developing chick embryo, with and without increased pressure and with and without the addition of a known teratogen, methoxyflurane, are under investigation. They have found that eggs exposed to 100% oxygen for six hours show a slight but not statistically significant increase in anomalies. Eggs exposed to 100% oxygen along with methoxyflurane show an increased incidence of toxicity over eggs exposed to methoxyflurane and air.

A new and apparently specific congenital anomaly induced by hyperbaric oxygen has been found. It consists of cystlike structure in the outer chamber of the eye. Other studies involved include relative effects of oxygen, helium and nitrogen lack, hypercarbia combined with anesthetics, low concentration of carbon dioxide and teratogenic effects of nitrous oxide.

Drs. Moya and Modell researched the possible relationship between halothane anesthesia and postoperative massive liver necrosis involving a retrospective study of the charts of patients at Jackson Memorial Hospital who died within six weeks of anesthesia and surgery during a four year period. Pathological specimens of patients demonstrating significant liver necrosis have been submitted to the Armed Forces Institute of Pathology for analysis. The University of Miami and Jackson Memorial Hospital were selected from 31 teaching institutions to cooperate in this study by the National Academy of Sciences.

Department of Biochemistry

GEORGE T. LEWIS, Ph.D.

Preparation of pure phospholipids by thin layer chromatography and the microanalysis of these compounds has been the interest of Dr. Karl Slotta.

A main problem at this time is the isolation of the two lytic factors from bee venoms in pure form by gel filtration on Sephadex columns and ion exchange chromatography. The hemolytic action and physicochemical properties of phospholipase A and the direct lytic factor (DLF) are being investigated. Electrophoretic studies showed that DLF of different sources has the same electric charge, whereas different phospholipase A preparations vary in this respect and also in their molecular weights.

Dr. Thomas J. Mende's work falls into three general categories. The first of these is a study of the mechanism(s) of aging of total body protein turnover by total body counting of Se^{75} methionine in rats of different ages.

The second is aimed at elucidation of the detoxification pathways of organophysphorus poisons. Drug sensitivity as a function of age was investigated using anesthestics and convulsants. A very marked sensitivity for both types of drugs appears in the oldest age group and was a progressive process during the life span. An enzyme located in liver mitochondria was partially purified which has the ability to hydrolize diethyl-paranitrophenyl phosphate (paraoxon) to diethyl phosphate and paranitropheno. This substance is the toxic metabolic product of the common insecticide parathion, and the enzyme in question seems to be one of the major routes of its detoxification.

The third project is developmental and involves synthesis of radiocontrast agents of novel types. Radiocontrast studies have recently provided polypeptide type substances which allow x-ray visualization of lymphatic channels using aqueous media and giving more prolonged specifications than other aqueous agents would allow.

Dr. Nancy L. Noble has concentrated studies on the metabolism of connective tissue of man and animal, especially as related to cardiovascular diseases and aging. Problems in the past have included the in vitro synthesis of C^{14}-cholesterol and $S^{35}O_4$-labeled glycosaminoglycans and the in vivo synthesis and disappearance of C^{14}-labeled collagen in sponge-connective tissue.

The current phase of connective tissue research is related to the heteropolysaccharides, glycosaminoglycans of the ground substance. Extracellular macromolecules of connective tissue, such as the glycosaminoglycans and collagen, are significant in the complex structure of the tissue, contributing to its integrity.

In many connective tissue abnormalities, the normal glycosaminoglycan pattern is altered, and there are marked distortions of connective tissue structure, that is, the development of cardiovascular disease including valvular changes and abnormalities of bone and cartilage.

Dr. George A. Tershakovec is carrying out studies on some biochemical aspects of aging. The age-related changes of enzyme activity in several rat tissues were investigated. Later the intracellular distribution of one specific enzyme in the rat brain was followed with reference to age. Dr. Tershakovec has also been investigating age-related changes in lysosomes (rat liver at present) in order to ascertain possible activity changes of some lysosomal enzymes and differences, if any, in the stability of lysosomal membrane at different ages.

Dr. David G. Anderson's work has dealt largely with gaining an understanding of biosynthesis and function of certain C_{15}, C_{20} and C_{30} terpenes. These compounds are generally found in plants and are structurally and biosynthetically related to the sterols and steroids vital in human metabolism. Dr. Anderson is using unicellular algae which produce extremely large amounts of

terpenes, from 10 to 50% of the organisms dry weight. Studies on biosynthesis involve the incubation of radioactive probably precursors of terpenes with organelles and cell-free preparations derived from purified algae.

Squaline, a cholestrol precursor, is a predominant product formed from all-trans-farnesylpyrophosphate by the algae. The requirements for the formation of the compound are essentially similar to the process previously elucidated in higher plants by Dr. Anderson.

Drs. Kenneth Savard and John Marsh are attempting to discover the mechanism by which a hormone elicits its effect on a target cell. This study of the mechanism of hormone action involves an investigation into all the biochemical steps from the first interaction of the hormone with the cellular component, called the receptor, to the final step which results in the observed hormonal effect. The mechanism of action has not been elucidated for any hormone, as yet, and they have just begun to understand the action of the luteinizing hormone (LH).

Dr. LaRoy S. Dietrich's work is concerned with the biosynthesis and degradation of vitamin-containing coenzymes and the factors, hormonal and otherwise, which regulate these processes. These studies deal almost exclusively with pyridine nucleotide metabolism. Studies are being carried out on the purification and properties of enzymes dealing with pyridine nucleotide metabolism in particular, NMN-pyrophosphorylase, and NAD kinase, the enzyme which makes NADP from NAD.

Dr. Sidney W. Fox is conducting experiments imitating spontaneous geothermal occurrences which have yielded, in various laboratories, most of the amino acids found in protein. All amino acids found in protein are simultaneously condensed, by heating in a range of appropriate conditions, to polymers which have many of the properties of proteins. These properties include some proportion of each amino acid, limited heterogeneity, mean molecular weights of many thousand, digestibility by proteolytic enzymes, nutritive quality and "catalytic" activities. One of the other properties is the tendency to form structured units; these units have many of the attributes of biocells. The geologically simple processes indicated, and others, comprise a conceptual continuum. According to information from the field and from the laboratory, the sequence of processes from primordial gases through amino acids through primitive protein to protocells occurred often in many regions of the primitive Earth.

Aspects emphasized most recently are catalytic activities, limitations in heterogeneity of thermal poly-anhydro-alpha amino acids, analysis of volcanic material, obtainment of protein-like proportion of all 18 amino acids, and complexing of proteinoids with polynucleotides, some produced by thermal condensation of mononucleotides.

Dr. W. J. Van Wagtendonk is investigating the establishment of the many strains of P. aurelia in sterile culture with special emphasis on the maintenance of the endosymbiotes in the animal. In addition, he is searching for the role of the steroid in the metabolism of P. aurelia, and the interaction of the steroid and the fatty acid. The enzymatic profile of the endosymbiotes is also under investigation.

Dr. A. T. Soldo is studying the DNA composition of the host cell and of the endosymbiotes, and is designing a chemically defined medium for P. aurelia.

Dr. R. E. Issacks is researching the composition of the basic proteins in the nucleus of P. aurelia.

The connective tissue framework of various tissues and organs is metabolically quiescent except in periods of growth and repair. Under investigation by Dr. J. F. Woessner Jr. is the relative contribution of synthesis and degradation to these remodeling processes, as studied in the rat uterus. In pregnancy, there is a rapid enlargement of the uterine connective tissue framework; in involution this framework is rapidly resorbed. The use of labeled proline and quantitative amino acid analysis allow one to calculate the contribution of synthesis and degradation to these physiological changes in collagen content of the uterus. Control of collagen breakdown or synthesis would have important implications in treating many diseases of the connective tissue and cardiovascular system. Dr. Woessner recently found that cathespin D, enzyme found in the uterus is also found in cartilage such as that of rabbit ear and chick embryo limbs. It is already known that excess vitamin causes the release of acid cathespin from cartilage lysosomes, producing extensive damage due to the digestion of proteinmucopolysaccharide complexes. Further studies are underway to determine whether cathespin D may be implicated in the early stages of arthritic disease.

Department of Dermatology

HARVEY BLANK, M.D.

The Department of Dermatology has an unusually large research program which has achieved worldwide recognition. It encompasses one of the few centers for modern basic investigation of the skin and its diseases.

In the steroid biochemistry research laboratories the metabolic changes of 14_C labeled steroid hormones, including hydrocortisone, cortisone, testosterone, estradiol and estrone, have been studied. When these substances were incubated with slices of human skin, a number of metabolites were found and identified. The enzymes involved in these metabolic changes are currently being studied. Biosynthetic pathways of sterols and fatty acid in the human skin are explored with the use of 14_C acetate. Lipogenic activity under normal and pathologic conditions are compared.

Bile acids constitute the major metabolites of cholesterol. The metabolic changes in bile acids can be used as models for the study of steroid hormones. Work in this area has clarified the metabolic pathways of several bile acids. Currently, the bile acid conjugating and hydroxylating enzymes of rat liver are under intensive study.

The microbiology research laboratory has continued studies concerning the etiology and pathogenesis of skin infections, particularly those of military significance in tropical climates. New methods of diagnosis of fungus infections have been developed for use under field conditions and were used to advantage in uncovering a large epidemic of scalp ringworm among Miami school children. Following an emergency request from the military in Viet Nam, a study was initiated in the Everglades in an attempt to reproduce tropical immersion foot among volunteers. It was found that this painful and disabling condition could be prevented by application of a silicone grease originally designed for laboratory vacuum equipment. Basic research into the mode of action of antifungal antibiotics established that certain lipoproteins present in human serum are capable of interfering with antifungal activity. Studies concerning the physiology and pathogenesis of yeasts and molds are being continued.

The electron microscopy laboratory carries on research at a submicroscopic level, usually in collaboration with other laboratories such as mycology and biochemistry in supplying a visualization of structural or functional changes due to experimental procedures. Two such projects are the effects of antifungal chemotherapeutic agents on fungal elements and the role of hepatic endoplasmic reticulum in drug metabolism. In addition, studies are made aiding the clinicians on identification and mechanism of invasion of viruses, yeast and bacteria.

The radioisotope and autoradiography research laboratories are pursuing studies on the dynamics of topical dermatologic therapy. Radioactively labeled drugs, including the corticosteroids, are actively traced into human skin, in vivo, and their routes of penetration and localization are recorded by autoradiography. This investigative approach is intended to supply information which will increase the therapeutic effectiveness of topically applied medicaments.

Studies on coenzymes, drug pharmacology and photosensitivity include a study of cutaneous coenzyme levels in man and animals which proposes to quantitate the oxidized and reduced pyridine nucleotides in normal and malignant human tissue. These small molecules are key to the electron transport in all living human cells. It is planned to study coenzyme levels in various normal and abnormal tissues, including skin cancer, and also in the apparently normal skin of various patients with serious underlying diseases including various carcinomas.

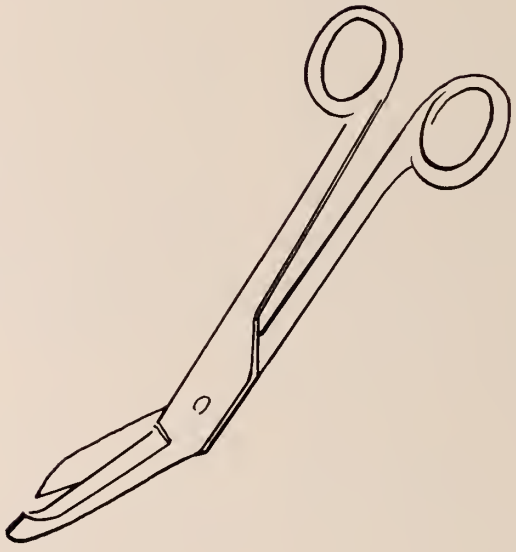
This is a continuation of preliminary studies which indicated that griseofulvin, an orally administered antibiotic used in many patients with fungous diseases, and warfarin sodium, an anti-

coagulant widely used following such diseases as coronary thrombosis, cerebral embolism and thrombophlebitis, interfere with one another. We further plan to investigate whether erythromycin and other drugs may behave similarly.

Various blood level studies on new tetracycline compounds to determine the best method and time of administration are in progress using human volunteers and a sensitive spectrophofluorometric assay.

A screening program is in progress for the detection of photosensitizing potential of a wide variety of drugs and chemicals. This screening program includes the use of microbiologic techniques utilizing small animals, amphibians and fish as experimental models, and human volunteers.

Studies on the biology and pathophysiology of nails include the histopathology and microbiology of nail diseases, comparative study of the keratinization process as well as the ultrastructural anatomy of embryonic and mature human nails and rat claws, and contributions of the various epidermal structures to the nail plate formation by autoradiographic techniques.



Department of Medicine

WILLIAM J. HARRINGTON, M.D.

Dr. Adel Yunis is studying glycogen synthesis and degradation in human leukocytes, with particular emphasis on control mechanisms and on possible differences between normal and leukemic white blood cells. The enzymes of both pathways are being studied in an effort to understand the basic mechanism of abnormal leukocyte glycogen levels in certain hematologic disorders. Dr. Yunis is also examining the metabolic and biochemical mechanisms by which certain drugs exert their toxic effects on human bone marrow, particularly choramphenicol and dilantin.

Dr. Joseph R. Rubini is conducting a clinical assessment of thymidylate diversion pathways in leukemic patients. Laboratory methods for both the histochemical and biochemical determination of leukocyte alkaline phosphatase, thymidine nucleoside phosphorylase and for assessing new DNA synthesis in vitro are being performed. Information is being examined for predictive value in the course of clinical leukemia and for its contribution to understanding basic control mechanisms of DNA synthesis.

Dr. G. W. Cole and Dr. H. E. Lessner are concerned with measurement of human complement activity in malignant diseases. Complement levels are measured by immune adherence in a series of patients with malignant conditions and are compared to hemolytic assay. The ultimate goal is the detection, utilizing immune adherence, of fixed antibody on spleen, liver and lymph node cells in patients with advanced debilitating malignant disease.

Drs. Lessner and Cole have been active for the past five years in the experimental chemotherapeutic program of the Southeastern Chemotherapy Group and are continuing this work. They have another project which involves urinary amino acid excretion in human malignant disease. By means of these excretion measurement studies, they hope to be able to detect metabolic abnormalities in some of the patients under study with various malignant conditions.

Dr. Jacob Colsky is continuing an evaluation of antitumor drugs. Initial human pharmacology and toxicology studies on new chemotherapeutic drugs are under way. Another program evaluating complement and complement components in normal patients and in patients with cancer is being investigated, as well as studies of complement components in patients prior to treatment and after treatment with various chemotherapeutic substances.

Dr. D. S. Howell is concerned with the mechanism of local urate crystal deposition in gouty arthritis. He is also studying calcium pseudogout involving an assay for pyrophosphate detecting levels of 10^{-7} molar in plasma together with micropuncture studies to assess plasma, synovial fluid and cartilage fluid for levels of pyrophosphate, pH and pyrophosphate activity.

The general objectives of the infectious diseases research programs by Drs. N. J. Ehrenkranz, William Pond, M. J. Carter and E. Barrett are the natural history, microbiologic and immunologic events of infections seen in this area, including those diseases that are characteristic of the tropics and subtropics. Patients with such arbovirus infections as St. Louis encephalitis and dengue are under study in relation to problems concerned with the rate of development of both specific and cross reactive antibodies during their acute infection. The same team is also investigating bacteriological and immunological factors occurring in urinary tract infection in patients who have active infection of pyelonephritis.

Dr. Donald R. Harkness is conducting studies on zinc and alkaline phosphatase in normal and leukemic leukocytes. These include the permeability of leukemic and normal leukocytes to zinc, utilizing radioactive zinc 65, both in vitro and in vivo studies prior to, during and following therapy and zinc balance studies.

Dr. Harkness is also interested in metabolic aberrations in the erythrocytes of patients with hereditary nonspherocytic hemolytic anemia. Cur-

rently he is studying the erythrocytes of a father and son with a deficiency of phosphoglyceraldehyde dehydrogenase, a previously undescribed red cell defect.

Dr. William J. Harrington's major project is on host responses to leukemias and lymphomas. His laboratory has presented evidence that host factors modify the course of leukemia and that immunologic mechanisms may be important in sustaining the therapeutic effects of alkylating agents and ionizing radiations. It is his belief that these therapies may modify the genome of target cells, with random coding from new antigens. The approaches being used for this study are daily observation on the evolution of new antigens and antibodies specific for them in selected patients and enhancement of antibody response to these new antigens by use of pseudomonas polysaccharide and perhaps phytohemagglutinin.

Dr. Javier Barquet and Dr. Harrington are investigating the mechanism of fever in Hodgkin's disease. They are interested in the possibility of the effect of nitrogen mustard on fever in relation to production of endogenous pyrogenic steroids. Drs. Harrington and Barquet are also conducting a study of pure red cell aplasia by evaluating stimulating factors in the plasma of acutely anemic or polycythemic patients on the course of pure red cell aplasia.

A project to enhance tumor rejection by immune lymphocytes is another investigation being conducted by Dr. Harrington. The effects of phytohemagglutinin on proliferation of the patient's lymphoid cells are under study as well as the evolution in changes in serum complement and in antibody for the autogenous tumor.

Dr. William Awad's current research includes an investigation into other biosynthetic pathways for the formation of thymine involving the use of methylated precursors. In addition, Drs. Awad and Wells are conducting an investigation in the field of porphyrin metabolism involving the use of methotrexate to block the folate dependent on carbon transfer from ketoglutaraldehyde.

Dr. Karl H. Muench is carrying out comparative and serial studies on protein synthesis in normal and leukemic cells. Dr. Muench has been able to isolate and purify the transfer RNA for 13 aminoacids and the RNA synthetases, thus allowing him to characterize them and study the heterogeneity of some of the RNA synthetases. He has also discovered a new action for the known antimalarial drug chloroquin in this system, namely that this drug interacts with transfer RNA, changing its conformation from an inactive to an active state.

Drs. A. Gorman Hills, E. L. Reid, William D. Kerr and Peter Jensen are currently studying ammonia transport. It is their working hypothesis that ammonia is produced by peripheral tissues as the fundamental end product of protein metabolism, but that in mammals and other terrestrial forms it must be transported, because of its toxicity, in conjugated form to the kidneys for release and elimination, more being conjugated as blood ammonia rises. Preliminary evidence suggests that the peripheral tissues of mammals conjugate ammonia with glutamic acid as glutamine.

Drs. Hills, Reid and Kerr are also continuing a four year study of diffusion of gases out of the nephron. They have presented evidence to show that the gases O_2 CO_2 and NH_3 are caused to diffuse out of the nephron during urine concentration as a result of reabsorption of water down an osmotic gradient.

Dr. Joel B. Mann and Dr. Martin H. Kalser are researching carbonic anhydrase control of hydrogen ion transport. Preliminary work has revealed a relationship between intracellular carbonic anhydrase activity, as indicated by red blood cell enzyme activity, and the maximum attainable rates of hydrion secretion by acid-secreting tissues, in particular the kidney. Studies have been extended currently to the stomach and pancreas, since both organs rely on carbonic anhydrase activity for their secretions.

Renal effect of organic phosphorus intoxication is a project of Dr. Mann and Dr. John E. Davies. Evidence of impaired renal function in spray-men has been obtained using organic phosphorus preparations, and initial data indicated a rough correlation between duration and severity of exposure and the degree of impaired function.

Drs. Asher Marks and Jose Bocles are investigating respiratory function in viral pneumonia, pulmonary physiological effects of prolonged oral progesterone compounds, long term physiologic observations in bullous emphysema and assessment of the role of glomectomy in the therapy of chronic obstructive airway diseases. They are also interested in the pulmonary mechanics in obstructive emphysema.

Dr. William Hulet has been concerned with renal genesis of hypertension in man. He has

reported that ammonia excretion is increased in a kidney with renal artery stenosis, and he is currently examining the effects of such lesions on the production of hydrogen ion. In experimental animals with induced hypertension, and in patients with constrictive lesions of one renal artery, the renal vein blood from the affected kidney frequently contains a pressor substance (renin); conceivably the urine as well as venous blood from the affected kidney contains an abnormal quantity of this substance, and studies are under way to test the urine for pressor substance by bio-assay.

Dr. John Richardson Jr. is investigating means of reducing costs and simplifying the use of peritoneal dialysis in the treatment of renal failure. Two programs under study are the use of a small bedside Millipore filter, which serves to remove all bacteria from a nonsterile reservoir of dialyzing fluid, and the use of less expensive chemicals in dialyzing solutions.

One team of researchers is carrying out a cooperative evaluation of pulmonary neoplasms to determine which is, or are, the best procedure, or procedures, for making the presurgical diagnosis of nonresectability of pulmonary neoplasms. Procedures being evaluated include endoscopy with cytologic study of bronchial secretions and biopsy, prescalene node biopsy and special radiological methods. The team includes Drs. Charles F. Tate Jr., Medicine, James R. Jude, Surgery, Manuel Viamonte, Radiology, D. Ralph Millard, Surgery, and Mario Vuksanovic, Radiology.

Under the term "electrophysiology in cardiology," Dr. Louis Lemberg and Augustin Castellanos Jr. are studying the use of controlled electricity in the study of cardiac muscle physiology in the dog and man, the programed interval pacing for external and internal use and the evaluation of paired electrical pulses in terminating ectopic tachycardias and in the management of acute pulmonary edema.

Drs. Sommer and Castellanos with Dr. James Jude are also studying postextrasystolic potentiation of cardiac function. Extensive studies of the coronary arterial and venous system include selective cineangiographic techniques, pharmacologic and physiologic responses, anatomic and pathologic observations and correlations in the natural history of isolated coronary disease and that associated with other forms of heart disease. These studies are being conducted by Drs. Sommer, Robert J. Boucek, Manuel Viamonte, Albert Gilson and Sylvester E. Gould.

Drs. Robert J. Boucek and Felix Madrid have been studying collagen synthesis and the detailed biochemical steps involved in an attempt to elucidate the molecular mechanisms in the pathogenesis of some of the more common collagen diseases.

Long term studies of the effects of surgery in acquired (prosthetic) valves and congenital heart disease are being researched by Drs. Sommer, Francisco Hernandez, James R. Jude and Carlos Lombardo.

Studies on hypertension are being conducted by Dr. Hugh R. Gilmore and Dr. Albert Johnson, and include pharmacologic and physiologic effects of various new antihypertensive agents and clinical and metabolic studies on siblings of Negro hypertensive patients.

A study of the natural history of congenital heart lesions by Drs. Hernandez, Castellanos and Jude is concerned with the most common congenital heart anomalies and an evaluation of any clinical, hemodynamic or angiocardiographic findings that may be of importance in each lesion.

As part of a larger program to evaluate the effect of pesticides on community and individual health, Dr. Joel Mann is conducting mercury studies. Compounds including phenylmercuric acetate (PMA) contain mercury and are commonly used in fungicidal paints, as a preservative for agricultural products and as a fungicide in swimming pools. The possibility that in children nephrotoxic effects due to mercury may develop, as related to its use in swimming pools, is under clinical study now.

Dr. Martin Kalser is evaluating metabolic, electrolyte and fluid balance, as well as gastrointestinal function in acute epidemic and endemic diarrhea; the parameters are being studied to include the ecology of the small and large intestine, fluid and electrolyte balance and total body exchangeable potassium and the absorptive function of the small intestine. He is also investigating the alterations of microbiological environment function and histology of the small intestine by antibiotic therapy. The work is based on evidence that chronic antibiotic therapy can improve various types of malassimilation syndrome, particularly tropical sprue. His other studies include medium chain triglyceride therapy in malassimilation disease, relation of glucose absorption to the gut flux of water electrolytes and with Dr. Arvey Rogers, a study of fat assimilation in malassimilation states.

Department of Microbiology

BENNETT SALLMAN, Ph.D.

Members of the Department of Microbiology are engaged in relatively diverse areas of investigation including microbial chemistry and physiology, chemical genetics, virology and tissue culture, immunochemistry, ecology, mycology and microbial pathogenesis viewed in host-parasite interaction context.

Dr. Bennett Sallman has been studying the biochemical changes that occur in cardiac tissue energy-deriving metabolic processes following Group A streptococcal infection and in normal rabbits with aging. Biochemical changes of cardiac tissue associated with aging mirrored closely the effects observed with infection, suggesting the working hypothesis that heart energy-deriving mechanisms possess specific loci particularly susceptible to the effects of stress and that aging may represent, like infection, another type of stress.

Dr. Sallman and Dr. George Schaiberger have developed a bacterial model for the study of aging at the cellular level. The system employed consists of a thymineless mutant of Escherichia coli 15 which, when cultured synchronously in defined media, continues to exhibit all of the growth characteristics of the active logarithmic phase for a period of hours, equivalent to at least six generation times, without DNA synthesis and multiplication. Study of this system indicates that cellular aging is associated with the following changes in DNA: decreased ability to function as a template in new DNA synthesis; the presence of protein (possibly histones) more firmly bound than in younger cells, and increased resistance to hydrolysis by nucleolytic enzymes which is perhaps due to additional linkages or bonding with age.

Dr. Michael Sigel and his associates have been conducting research mainly in two areas, the etiology and immunology of virus-induced neoplasia and virological and immunological problems in lower vertebrates.

In earlier studies, Dr. Sigel and Dr. Thomas M. Scotti, Department of Pathology, had demonstrated that the rat brain could be utilized for heterologous transplantation of malignant cells derived from human tumors. Utilizing this transplantation system, human embryonic tissues have been grown in the steady state and under conditions of infection with adenovirus type 12. These experiments showed that the virus can multiply and necrotize human cells but does not induce malignant alterations.

Dr. L. William Clem has been concerned with the isolation of marine fish viruses and the nature of antibody formation in lower vertebrates. About five years ago he established a permanent cell culture of grunt fin cells, the first permanent line of marine fish tissue culture, and isolated an agent which appears to have many of the characteristics of a virus. Dr. Clem has also found that the predominant, if not exclusive, immunoglobulin in the marine fishes is gamma M, which exists as both 19S and 7S proteins. Although sharks possess a serum protein with an electrophoretic mobility of gamma G immunoglobulin, this protein appears to be a transferrin rather than an immunoglobulin.

Dr. Sigel and Miss Ann R. Beasley have found that marine fishes are capable of elaborating interferon following infection with virus. Miss Beasley has demonstrated that this protective substance can mediate the establishment and perpetuation of marine cell cultures in which infectious and otherwise destructive marine virus can be maintained. She is also engaged in studies with lymphocystic virus of fish, which induces a tumor-like lesion in suitable species. A virus isolation, the first such from marine animals, has proved to be DNA in nature, replicating in the cytoplasm of infected fish tissue culture cells.

Investigating the nature of the component or components present in normal human serum which inhibit the growth and reproduction of pathogenic yeasts and fungi, Dr. Frank J. Roth Jr. has obtained evidence that, in addition to classical antibodies, serum transferrin or siderophilin may inhibit the growth of yeasts. The role of such

body fluids in confining the invasion of the superficial mycotic agents to nonviable, keratinized tissues is being evaluated. Dr. Donald G. Ahearn has analyzed the frequency of occurrence of particular species of yeasts in urine of normal persons and in those with symptoms of overt infection. His findings indicate that the frequency of asymptomatic yeast infections may warrant attention as possible forerunners of pyelonephritis. In collaboration with Dr. Roth, Dr. John R. Forro has been studying the mechanism of the antibiotic agent, griseofulvin, on protoplasts of the dermatophytic fungus, Trichophyton mentagrophytes.

Dr. Sheldon Greer has been continuing his studies of the molecular basis of mutagenesis by heat in Bacillus subtilis. His experiments indicate that heat may remove a purine in a single nucleotide in a manner that may lead to a reading frame shift. Similarly, transversions (the substitution of a purine for a pyrimidine or vice versa) may occur. These studies are related to establishing heat as a mechanism of spontaneous mutation in evolution and of genetic diseases of man. Another facet is the establishment of intercistron relationships of in vitro induced mutational sites related to the biosynthesis of methionine and the branched amino acids in B. subtilis. The interrelationship between structural gene mutations and modifier (regulatory, suppressor) mutational sites also has been explored.

Dr. William L. Pond has been evaluating the importance of arboviruses as a cause of disease in South Florida. Patients ill with central nervous system disease and fever of unknown origin have been studied serologically using a battery of 22 arbovirus antigens. The presence of St. Louis encephalitis virus has been monitored by testing for the presence of antibodies to this virus in pigeons maintained in many areas of Florida. Immunization with yellow fever vaccine has been found to be a useful tool in these epidemiological studies because of the differential anamnestic response which such immunization elicits in persons who have previously been infected with other Group B arboviruses.

A lymphocytic leukemia-inducing virus from Sprague-Dawley rat mammary carcinomas which had been induced initially by 7,12-Dimethylbenzanthracene treatment has been isolated by Dr. Victor V. Bergs. The leukemogenic agent was recovered from chemically treated random-bred animals in which spontaneous leukemia is rare. A filterable, hemagglutinating virus was recovered from rat embryo cell cultures previously innoculated with the leukemogenic extracts; this virus, however, has not as yet induced leukemia when injected into rats. Dr. Bergs has obtained additional evidence that two separate viruses may be involved in the leukemogenic process.

Investigation of infection mechanisms in bacterial meningitis are being conducted by Dr. Murray M. Streitfeld. He has determined that many strains of Hemophilus influenzae produce the enzyme hyaluronidase and possess an endotoxin. Strains of Flavobacterium meningosepticum are also being studied since outbreaks of lethal meningitis with this organism have been reported in premature infants.

Drs. Doran D. Zinner and James M. Jablon have isolated strains of streptococci from humans, hamsters and rats which in pure culture produce caries in gnotobiotic rats. Fluorescein-conjugated antisera to the human types have been prepared and utilized in epidemiologic studies. The results of these investigations indicate that the presence of such strains in humans appears to be associated with the formation of carious lesions. The biochemical mechanisms underlying caries production by these strains are being investigated in vivo with rats and hamsters and in vitro using human teeth. Immunologic studies and chemical identification of cell wall components are also in progress in order to classify these strains which appear to be new "types" of streptococci.

Department of Neurology

PERITZ SCHEINBERG, M.D.

The Department of Neurology is engaged in investigative activities in several specific areas including biochemistry of the nervous system, neurophysiology and muscle histochemistry, cerebral circulatory physiology and clinical research.

Drs. Seymour Joffe, Bernadette Bourne, Martin Taylor and Peritz Scheinberg are researching in the area of biochemistry of the nervous system. Dr. Joffe's major interest is in the lipid chemistry of the nervous system. He is studying the biosynthesis and intermediary metabolism of certain complex lipids, to isolate and study the properties of the enzymes involved, and then to extrapolate this information to events in normal and disease states in the central nervous system.

Dr. Bourne's interest is catechol amine metabolism in the nervous system. One project is the measurement and localization of p-hydroxyphenyl pyruvic acid in the allantoid fluid of the developing chick embryo. This product is known to be inhibitory toward dopa decarboxylase, and she is investigating this inhibition to see if it is related to the wide shifts or variations reported in dopadopamine levels in avian embryonic brain during development. She has also been studying various physiologic amines in embryonic brain and correlating their levels with levels of enzyme activities on the synthetic and degradative pathways. In conjunction with Dr. Taylor, studies are in progress to observe the effect of low phenylalanine diet on Parkinson's disease with associated biochemical studies. Drs. Bourne and Scheinberg have cooperated in studies on cerebral carbohydrate metabolism in human subjects and in animals with particular reference to the study of excess lactate production in the human brain under a variety of physiological stresses.

Neurophysiological and muscle histochemistry studies are conducted primarily by Dr. Wayne Tobin. One of these studies involves the characterization of individual motor neurones in man. Investigations of individual motor units in cats have provided evidence that motor units differ in their functional and morphological properties. The proposed studies in man are intended to demonstrate the extent to which the animal findings may be applied to the understanding of human physiology, to provide new information as to the physiologic and morphologic basis of motor function, and to provide a method for studying the effects of diseases and drugs on spinal motor neurones.

Muscle histochemistry studies are performed on patients with a variety of neuromuscular problems in conjunction with careful clinical and electrophysiological studies.

Studies on cerebral circulatory physiology are conducted under the direction of Drs. O. M. Reinmuth and Peritz Scheinberg. During the past five years a method has been developed to allow the measurement of cerebral blood flow in a fashion not previously feasible. The method has involved the utilization of I^{131}-labeled iodoantipyrine and sampling of the arterial and jugular venous blood for the isotope content while simultaneously counting the accumulated isotope in the brain by external stimulation detectors. This method has been utilized to measure a large number of physiological variables in cerebral circulation, and our particular attention has been turned to the effects of altering arterial and cerebral oxygen and carbon dioxide tension and the effects of these alterations upon cerebral blood flow and metabolism and function. Some of the clinical applications of cerebral blood flow and metabolic studies have been applied to the problem of cerebral vascular disease, wherein they have attempted to correlate cerebral blood flow and metabolism with arteriographic changes and clinical observations in a variety of cerebral vascular disease problems.

Dr. Frank Gollan, Richard Namon, Richard Sano, Dr. Simon Markovich and Dr. Peritz Scheinberg have been exploring various methods of measuring blood flow to the brain by studying the changes of electrical impedance of the brain. These studies are classified under the heading of

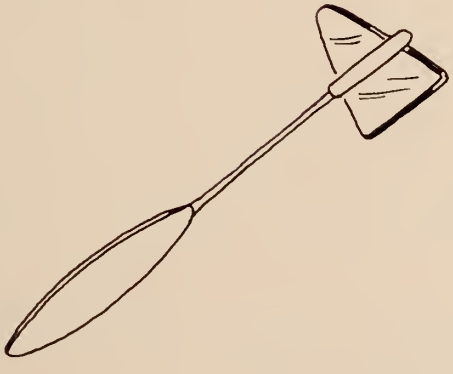
cranial plethysmography or rheoencephalography. Rheoencephalographic studies in animals and humans have been under way for the past two years in an effort to correlate hemodynamic measurements of many sorts with the electrical impedance changes which can be measured in the brain accompanying the arterial pulse.

Research activities in the clinical area have been primarily concerned with cerebral vascular disease, and a center was established at Jackson Memorial Hospital in 1964. Recently a grant was obtained to continue studies on patients admitted to the center. Patients with different forms of cerebral vascular disease are studied carefully from the onset and followed through the stages of recovery or deterioration to collect information about the natural history of strokes under the direction of Dr. Sherif Shafey. The ancillary diagnostic procedures are being evaluated carefully to establish their reliability. Different methods of therapy applied to different forms of cerebral vascular disease are being evaluated by utilizing a randomized series of patients including surgical reconstruction of extracranial vessels, anticoagulation therapy, medical therapy for the control of hypertension and related procedures.

As a part of this study, the neurology service is engaged in the study of nonarteriographic methods which may be employed to detect disease within the carotid arterial system leading to the eye and brain hemisphere of that side. Under the direction of Dr. Noble J. David, the techniques employed include a careful ophthalmoscopic examination with ophthalmodynametric determinations and fluorescein appearance times.

Cineangiography is conducted in animals and humans for the purpose of observing directly the changes which occur in extracranial and cranial circulation during various physiologic maneuvers such as head turning. It has been utilized for the purpose of demonstrating the rapidity of development of collateral circulation in experimental infarction.

Drs. Sherif Shafey and Raoul Echinique are investigating two clinical problems of neuroendocrinological interest. One has to do with the problem of central nervous system control of aldosterone secretion, studied in patients with inappropriate antidiuretic hormone response secondary to a brain lesion, the other is the relationship of the central nervous system to the melatonin secretion and gonadic functions.



Department of Obstetrics-Gynecology

WILLIAM A. LITTLE, M.D.

The Department of Obstetrics-Gynecology is engaged in a variety of research activities which are being carried on in a number of areas of reproductive pathology and physiology.

From its inception, the department has been active in the investigation of both the basic and clinical aspects of gynecological cancer. Intraepithelial carcinoma, dysplasia and an exfoliation of cancer cells from pelvic organs have been studied utilizing cytologic and epidemiologic techniques.

Emphasis has been placed upon cancer of the cervix. Information collected over the past 10 years is being related to intercurrent and preceding disease states.

Drs. J. H. Ferguson, M. LaIuppa, H. E. Averette and A. G. W. McLeod have participated in a variety of projects, including the utilizing of epidemiological methods for the evaluation of conization of the cervix as a diagnostic and therapeutic procedure in both pregnant and nonpregnant subjects, and for the evaluation of factors associated with the suspicious (Class III) Papanicolaou smear. A cancer detection center has been organized by Dr. Ferguson for follow-up of women with positive or suspicious Papanicolaou smears. As many as 77 teenagers with positive smears are being followed in order to learn the significance of the positive smear in their future life.

Cytologic screening studies are now a part of an extensive interdepartmental project. The use of routine culdocentesis is also being evaluated for reliability in the early detection of ovarian neoplasms.

Dr. Averette is primarily interested in the study and treatment of gynecologic cancer. By utilizing autoradiographic techniques, he is studying normal cellular proliferation in the human uterine cervix, vagina and vulva for comparison with abnormal cellular proliferation that frequently occurs in these tissues. Dr. Averette's other projects include radiographic studies of the lymphatic system for the preoperative detection of lymphatic involvement by cancer, lymphatic circulation following lymphadenectomy and lymphographic changes following pelvic radiotherapy.

Drs. Ferguson and Averette are utilizing Thio-Tepa to treat advanced ovarian carcinoma. Over 100 patients have been treated with this chemotherapeutic agent and results are now being tabulated. In addition, Drs. Ferguson and McLeod are participating in cooperative studies in the evaluation of Provera as an agent in the treatment of patients with endometrial carcinoma.

Embryonic and fetal pathology and physiology are being studied in Dr. W. A. Little's laboratory with the performance of various teratologic, analytic and cytogenetic experiments in carefully timed gestations in a variety of animal species. Various drugs are being studied in respect to drug distribution in fetal and maternal tissues and placental transfer according to dose and route of administration for both parent compounds and metabolites. These values are being related to certain differences observed in respect to teratogenesis. Also, Drs. LaIuppa and Smith (Anesthesiology) are investigating the kinetics of placental transfer of procaine in normal uncomplicated gestations.

A primate facility is being started within the department. Studies in subhuman primate reproduction are under way, with emphasis being placed upon the effect of environment on teratogenesis and fetal outcome.

Dr. J. A. DeCenzo and members of the resident staff are evaluating the treatment of incomplete abortion utilizing outpatient procedures. Another project for the treatment of incomplete abortion and endotoxin shock associated with septic abortion is also under study by Dr. McLeod and the resident staff.

Department of Ophthalmology

EDWARD W. D. NORTON, M.D.

Dr. J. Lawton Smith has continued his clinical studies emphasizing the discrepancies between applanation and Schiotz tonometry. While the "experts in glaucoma" fail to find these discrepancies, we have repeatedly confirmed Dr. Smith's observations and now have several patients whose glaucoma has been controlled by Schiotz standards but is uncontrolled by applanation measurements. The clinical course has been consistent with uncontrolled glaucoma.

Dr. Ralph Kirsch, who was the first to recognize the entity of glaucoma following the use of alpha-chymotrypsin, has extended these studies to show that while it is dose-related, the phenomenon still occurs in a significant number of cases in which only a small amount is used.

Stimulated by these observations, Drs. Nicholas Kalvin, Norman Ellerman, J. Donald M. Gass and Duco Hamasaki have reproduced the disease in the owl and squirrel monkey. The observations to date suggest that the enzyme causes the glaucoma indirectly through its action on the zonular material, and that this complex then acts on the trabecular meshwork to inhibit the egress of fluid from the eye. On the basis of follow-up studies by Drs. Hamasaki, Tadashi Fujino and Kalvin, in cooperation with Dr. de Venecia and Dr. Zimmerman of the Armed Forces Institute of Pathology, it appears that the elevated intraocular pressure impairs the blood flow to the optic nerve, even 3 to 5 millimeters behind the globe, thus producing ischemic infarcts in the nerve with atrophy and cupping.

For the past three years the department has been deeply involved in the use of fluorescein angiography as a clinical aid in correlating anatomical with physiological changes. Fluorescein can be photographed as it flows through the retinal and choroidal vessels so that flow time can be recorded. Gross variations in flow are readily appreciated with the present techniques of photographing at the rate of four per second. In addition, permeability of retinal and choroidal vessels becomes apparent, since in the normal the dye is contained within the vascular channels. Initial studies showed the similarity in pattern between hemangiomas and melanomas of the choroid and the different pattern of metastatic tumors in the eye. Fluorescein studies in macular disease have clearly focused our attention on the underlying choroid as the primary area of disease, with the retinal changes being secondary.

In studying central serous retinopathy, Dr. Gass has demonstrated the primary defect to be a focal change in permeability of the choroidal vessels, with a small detachment of the pigment epithelium and a large serous detachment of the retina. In chronic cases, treatment of the focal "leak" with photocoagulation has produced rapid and dramatic regression of the serous retinal detachment.

Senile macular disease appears to be much more complex but, again, to be primarily a disease of the choriocapillaris with secondary changes in Bruch's membrane and the pigment epithelium. New vessels growing from the choroid into the subpigment epithelial space appear to be the basis for the large hemorrhages that give rise to hemorrhagic disciform degeneration of the macula.

Macular changes following cataract extraction, the so-called Irvine's syndrome, are one of the major complications encountered today. Fluorescein angiography has clearly demonstrated these changes to be intraretinal, with a characteristic pattern of leakage from the retinal vessels. This technique has demonstrated the lesion when it is difficult to recognize by any other method and has pointed out how common its occurrence is and that many patients have a spontaneous remission.

Dr. Hamasaki and Dr. Fujino have completed studies on the effects of intraocular pressure on the electroretinogram. It appears that if the blood-ocular pressure relationship is maintained,

no changes will occur. In studying the effects of independent impairment of the choroidal or retinal blood flow, the choroidal circulation appears more critical to the stabilization of the PIII component of the electroretinogram, but impairment of either circulation quickly affects the B wave.

Under Dr. Curtin's guidance, the ocular pathology laboratory has rapidly developed not only in the processing of clinical specimens, but also in experimental material. Dr. Curtin and Dr. Fujino have studied the pathological changes in the ocular tissues following application of controlled freezing temperatures. A firm chorioretinal adhesion can be produced with apparently minimal damage to the surrounding sclera and vitreous. The chorioretinal adhesion is comparable to that obtained by photocoagulation.

Dr. Henry Ring and Dr. Fujino have carried out extensive studies on the vasculature of the choroid using intravascular injections of Neoprene or Silicone rubber, cross sections and flat preparations of the choroid. These demonstrate a rich anastomosis, so that one short ciliary vessel has the potential to supply the entire choroid anteriorly and posteriorly. The macula area differs from other areas in that it has a greater number of large arterial vessels. One finding in the aged was the frequent occurrence of neovascular networks in the periphery lying between Bruch's membrane and the pigment epithelium. These are interesting because they have not been recognized clinically, nor have they been associated with recognizable disease.

The electron microscopy laboratory of the department is now under construction. Dr. Arnold Kroll, who will take over as its director, has completed five years at the Howe Laboratory of Ophthalmology at Harvard, working with Drs. Cogan and Kuwabara. His interests will be directed toward acquired retinal lesions.

Dr. Robert Sexton, in collaboration with Dr. James Connor of the Department of Pediatrics, has been working to find a more suitable laboratory model for the study of herpes simplex. He has been able to cause herpes simplex infection of the cornea in the owl monkey by innoculating stock herpes homonis virus into the cul-de-sac. The animals so infected have died within approximately six days after innoculation. Pathological studies show striking similarity to the generalized herpes simplex infections in the human newborn. Efforts are now being directed to modify the infection in hopes that the animal will recover and subsequently be susceptible to recurrent infections under appropriate stimuli.

Dr. J. Lawton Smith has chronic experiments in progress in an attempt to produce macular lesions in owl and squirrel monkeys infected by Histoplasma capsulatum. To date, choroidal lesions which are ophthalmoscopically similar to those associated in man with the macular lesions described by Woods and Whalen have been produced with the organism. The fungus is found to be in the choroid, rather than in the retina, in such animal eyes. The specific macular lesion has not as yet been produced, but attempts to produce the lesion by immune-allergic challenge, rather than primary infection, are being made.

A new specific blood test for syphilis, the fluorescent treponemal antibody-absorbed (FTA-ABS) test, has been studied in over 1,000 sera submitted from the Ophthalmology and Neurology services of Jackson Memorial Hospital in the past three years. Through 1965, all blood tests were performed at the U.S.P.H.S. Venereal Disease Research Laboratory in Atlanta, Georgia. A technician has now been obtained to perform the FTA-ABS test on a research basis in the Ophthalmology department. Over 200 cases have been detected which fulfill the following criteria for a diagnosis of seronegative ocular and neurosyphilis:

(1) clinical signs of late syphilis,
(2) nonreactive serum reagin test (as VDRL, Kahn, Hilton and the like),
(3) history of veneral infection, often with inadequate treatment, and
(4) a reactive FTA-ABS test on peripheral blood.

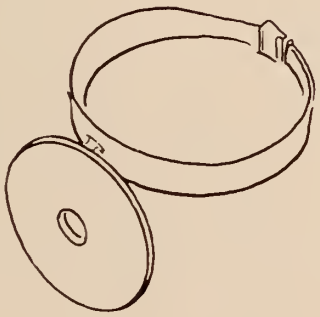
The discovery of large numbers of patients showing such clinical signs as light-near dissociation of the pupil, optic atrophy, iris atrophy, neurologic symptoms of posterior column disease and the like, prompted a laboratory investigation of this problem. In the past three years, over 125 animals have been followed in a chronic experiment studying primary ocular and neurosyphilis. Virulent T. pallidum have been injected into cisterna magna, cornea, anterior chamber, conjunctiva, and optic nerve, as well as carotid artery, by subcutaneous and intravenous routes in owl monkeys, squirrel monkeys and rabbits. It has been possible to document conversion of FTA-ABS tests and TPI tests in monkeys given treponemas over 18 months ago who have shown no clinical signs of disease whatever, and have remained nonreactive to serum reagin tests.

In other animals, clinical signs of disease have been noted; but again, some of the animals have remained nonreactive to serum reagin tests. The most recent finding which promises to be of considerable interest is the use of the fluorescent antibody tissue stain for T. pallidum. Spirochetes have been found on routine anterior chamber paracentesis in white, quiet eyes of monkeys and rabbits previously infected many months earlier in various routes, as skin and cisterna magna, etc., and this promises to be a helpful method of making a positive diagnosis much more rapidly than by passive transfer, and much more specifically and sensitively than can be made by the older, nonspecific tissue stains employing silver precipitation.

Evoked occipital potentials, as popularized by Copenhaver, are being studied by Dr. Thorne Shipley. He has demonstrated in trained observers a reproducible wave pattern varying with the color of the stimulating light. This wave pattern is different in a color-blind person.

Combining the electroretinogram with the evoked occipital potentials, Dr. Shipley and Dr. Smith have had some promising results in estimating the visual function of a suspected blind infant and directing further neurological evaluation.

Dr. Shipley and Dr. John Flynn have embarked upon studies concerned with the complex problems of amblyopia, fixation disorders, the nature of retinal dysparity and the measurements of binocular anomaly.



Department of Pathology

W. A. D. ANDERSON, M.D.

Research dealing with trace metals concerned with physiology and pathology of the male reproductive system is the primary interest of Drs. W. A. D. Anderson, Samuel A. Gunn and Thelma Clark Gould. The origination of these studies was based on the observation that administered Zn-65 concentrated in the dorsolateral lobes of the rat prostate, paralleling their rich natural zinc content. It was shown that this degree of Zn-65 concentration was hormonally controlled and that Zn-65 uptake by the dorsolateral prostate could be used as an endocrine tool to evaluate androgenic activity. These studies also revealed seasonal fluctuations in the capacity of the dorsolateral prostate to concentrate Zn-65, reminiscent of the patterns of cyclic breeding in wild rodents.

Comparable alterations were shown in the degree of sensitivity-response of the gland to exogenous and endogenous hormones, emphasizing that archaic biological rhythms are strong enough to alter endocrine experimentation even in the laboratory rat. Zinc of the testis, associated with both spermatogenic and interstitial elements, was also shown to be hormonally controlled.

Studies have been extended to include another physicochemically related element, cadmium, which had been reported to injure selectively the male gonad. Investigations on this aspect have revealed that testicular necrosis following parenteral administration of cadmium is a secondary result of specific injury to the vasculature of the testis. Recent studies have shown that this testicular vascular injury induced by cadmium can be prevented by zinc, selenium, sulfhydryl compounds and estrogens. This work emphasizes that every organ may have blood vessels with a biochemical system unique for the metabolic needs of the particular organ nourished. In long term investigations, cadmium proved to be cancerigenic.

Drs. Anderson and Gunn have been active in the field of exfoliative cytology, evaluating new methods in obtaining and processing cellular specimens for the diagnosis of cancer of the cervix uteri.

Dr. John B. Miale is conducting an extensive long term investigation of presurgical coagulation testing to prevent fatalities caused by unexpected bleeding during surgical procedures. Results have already shown the advantage of the partial thromboplastin time over tests previously in use. An extension of this study has developed a microtechnique for the partial thromboplastin time, using a special pipette developed by Dr. Miale. Another phase of this same project is the evaluation of the semiautomatic method of ascertaining both the prothrombin and the partial thromboplastin times. This method proved to be more accurate and is utilized in many clinical laboratories throughout the country.

Another study is monitoring, by serial studies lactic dehydrogenase isoenzyme patterns, the development of liver tumors in a group of rabbits being fed the carcinogenic agent nitrosamine. The effect of long irradiation in another similar group is under study.

Studies by Dr. Thomas M. Scotti are concerned with the use of heterologous transplant for the investigation of the interaction of viruses and cells as a means of obtaining information in the realm of biologic activities of viruses, particularly those with oncogenic effects.

Dr. Max Millard participated in a study by Dr. Martin Kalser for the Commission on Enteric Infections of the Armed Forces Epidemiological Board. As a part of a larger clinical study, rectal biopsies were taken from patients with chronic diarrhea of unknown origin. These disclosed in the space between the muscularis mucosae and the muscularis: edema, lymphangiectasis and infiltration by lymphocytes, plasma cells and eosinophils. The degree of this change paralleled the severity of the diarrhea. Dr. Millard is also conducting

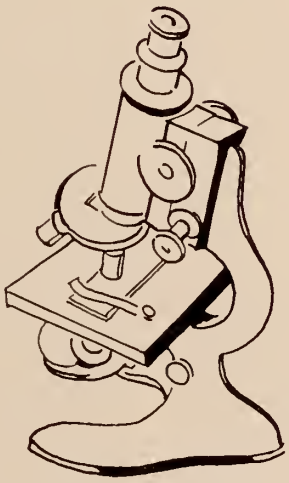
investigations into the morphology of lungs perfused with formalin solution in cases of emphysema and pulmonary fibrosis.

Dr. J. Walter Beck is evaluating various procedures that may be used for the diagnosis of intestinal amebiasis. For each patient, three methods are being evaluated: histologic examination of intestinal mucosa obtained by punch biopsy, examination of a series of three stools using direct and concentration techniques, and examination of fresh and stained smears of intestinal mucosa obtained by means of a specially constructed brush.

Dr. Beck, in collaboration with the Department of Ophthalmology, has recovered viable eggs of Toxocara canis (dogs ascarid worm) and cultivated them to the infective larval stage. Monkeys, examined and cleared of intestinal parasites, are being fed infective T. canis eggs and studied to determine if wandering larvae might cause eye lesions as reported in humans. Immunologic studies are anticipated. Antigens will be prepared from eggs and larvae as well as adult worms. Immunodiffusion techniques for evaluating antigen-antibody reactions will be investigated.

Dr. Joseph R. Jannach is investigating the morphologic aspects of clot fibrinolysis with emphasis on individual fibrin strands and platelet structure. Present findings indicate several ways in which fibrin strands, platelets and platelet clumps undergo lysis or disintegration. Dr. Jannach is also relating DNA, RNA and protein synthesis to the morphologic forms of Candida albicans. Marked increases of RNA and protein over DNA occur during germ tube and hyphal formation when compared to budding.

Dr. Anthony R. Clerch is studying the adrenal cortical response to stress in dogs, and is conducting an extensive evaluation of endocrine tests currently used in clinical laboratories. A blood preservation study is also in progress.



Department of Pediatrics

WILLIAM L. NYHAN, M.D., Ph.D.

The research program of Drs. William L. Nyhan and Paul Tocci is devoted to the study of inborn errors of metabolism and related aspects of the biochemistry of human disease. It is concerned with the detection of new disorders of metabolism, with the elucidation in known disorders of the site of the fundamental defect and with the mechanisms whereby disordered chemistry produces clinical disease.

A laboratory of biochemical genetics has also been set up to bring the tools currently employed in research in biochemical genetics to bear on the screening of individual patients and populations.

The availability of a clinical research facility also permits the admission for definitive studies of persons found on screening tests to have metabolic abnormalities. Examples of this work have been the delineation of two previously unrecognized inborn errors of metabolism. Hyperglycinemia is one of these, a condition in which elevated levels of glycine in blood, urine and cerebrospinal fluid occur in patients who have mental retardation, leukopenia, thrombocytopenia and recurrent episodes of ketosis leading to coma. The other is a disorder of purine metabolism in which marked overproduction of uric acid and symptoms of gout are found in children with mental retardation, cerebral palsy, choreoathetosis and self-destructive biting.

Other studies recently carried out were on the occurrence of gamma-aminobutyric acid in human tissues and on patients in whom an acquired Fanconi syndrome developed on ingestion of outdated tetracycline. A related project is the study of phenylketonuria, its diagnosis and treatment, which is being done by Dr. Carol S. Shear, who is also the Assistant Director of the Developmental Evaluation Clinic and a specialist in the problems of mental retardation.

Dr. George F. Smith is Director of the Developmental Evaluation Clinic, which began as a demonstration clinic but is now broadly devoted to the objectives of service and training in mental retardation as well as demonstration.

The aim of a project of Drs. William W. Cleveland and Douglas H. Sandberg is to gain further knowledge of androgen metabolism in infants and children, particularly as it relates to physical and sexual development and abnormalities in these processes. The approach to the problem is the application of highly sensitive techniques, particularly those of gas-liquid chromatography, to the measurement of specific androgenic steroids, such as testosterone, in body fluids of infants and children.

Bile acids, as the major end product of cholesterol metabolism, are of considerable clinical and metabolic interest. Investigation of these steroids has been hampered by lack of adequate chemical methods of analysis. Techniques have been developed using gas chromatography for separating and measuring the bile acids. Current research of Dr. Sandberg is to determine whether serum or fecal patterns will be useful in the differential diagnosis of obstructive versus hepatocellular causes of jaundice, particularly in the newborn.

Dr. Theron Alexander is investigating the emotional characteristics of children with chronic disease. Conditions such as asthma, diabetes mellitus, ulcerative colitis and disorders of the central nervous system have long been thought to have emotional factors of consequence in treatment. Investigation of emotional characteristics has been undertaken through the development of techniques for computer analysis of language. Information about emotional characteristics during development is of value in itself, since few data are now available.

An analysis of the microbial products involved in human infections has been developed and applied to the study of streptococcal disease and rheumatic fever. This approach by Dr. Seymour P. Halbert consists of three phases: estimation of the number of antigenic toxins, enzymes or other substances released by the micro-organisms in the tissues during infection, purification and characterization of each antigen detected, and study of potential pathogenetic significance.

Dr. Halbert and Dr. Ehrlich have also carried out studies on cytotoxic properties of antibodies to various tissues prepared heterologously. These investigations have revealed that anti-heart, anti-cornea and anti-lens sera were capable of damaging certain cells in tissue culture. They revealed a surprising degree of tissue specificity. For example, anti-heart antibodies damaged hearts cells, but not spleen, conjunctival, corneal fibroblasts or kidney epithelium. The data suggest that similar tissue specificities may occur in homograft reactions.

A new technique for detecting immune reactions has been applied by Dr. Halbert and Dr. W. Dandliker to the "penicillin" allergy problem. The fluorescence polarization method has been shown capable of detecting penicilloyl antibodies with high sensitivity, great rapidity and simplicity. It is planned to investigate human allergic reactions to penicillin in order to discover whether these manifestations are determined by the degree of avidity to the penicilloyl antibodies produced.

The detailed biochemical evolution of lens proteins has been investigated by Dr. Halbert and Dr. W. Manski by immunochemical methods. It has been possible to trace the phylogeny of these proteins over a considerable span of geological time, about 450 million years. Among recent findings has been the observation that the lungfish could not have been closely related to the ancestor of air-breathing land vertebrates, but must have evolved from a primitive fish some time prior to the ancestor of amphibians.

The research clinic for cystic fibrosis was established in the department in 1960 under the auspices of the National Cystic Fibrosis Research Foundation. Dr. Robert M. McKey Jr., director of the clinic, currently has 85 patients being followed in the clinic, one of the largest in the nation. Studies are in progress on the definition of the carrier state and on excretion of mucopolysaccharides in the urine of these patients.

Studies are in progress on pulmonary surfactant by Dr. Samuel T. Giammona. This surface material is extractable from lungs and is thought to represent the pulmonary lining layer. The material is being isolated from lung extracts and analyzed chemically, including analysis of the fatty acid components via gas chromatography. Studies are also under way on the incorporation of C^{14}-labeled material into this pulmonary surfactant, on the effect of tobacco smoke on this material and on the exchange of blood gases in adults and newborn infants. This last study is directed toward the investigation of newborn infants with hyaline membrane syndrome.

The work of Dr. James D. Connor is devoted to the relationship between viruses and human disease. It has recently been demonstrated in his laboratory that the clinical disease we know as whooping cough can be produced by adenovirus type five. Dr. Connor is also studying the development of a system in which hydrocortisone exerts an influence on human amnion cells. In collaboration with Dr. R. Sexton of the Department of Ophthalmology, herpes virus infection of the conjunctiva is also being researched by Dr. Connor.

The Physiology of Normal and Abnormal Growth represents part of a joint program for the study of human growth initiated by Dr. Nyhan with the Department of Pediatrics at the Johns Hopkins University School of Medicine. A wide variety of measurements is being made on a group of children with congenital heart disease and endocrine disorders. Under study, too, are children with concomitant growth failure and children with similar conditions in which growth is normal. Growth and other responses to surgery or hormone therapy will be studied in the case of correctible disease.

Dr. Nyhan, Bohdan Bakay, Dr. Irving Lillien and Dr. Akitane Mori are conducting a study of the biochemistry of thalidomide. A systematic investigation of the pharmacology of thalidomide and related compounds is planned with emphasis on the delivery of the drug at the effector sites. Information to date indicates that thalidomide crosses the placenta, is subsequently metabolized by the fetus and its metabolic products are bound to fetal DNA.

Department of Pharmacology

WILLIAM B. DEICHMANN, Ph.D.

The feeding of four tumorigenic materials with the diet, Aramite, methoxychlor, DDT and thiourea, in concentrations up to 50% of the tumorigenic dosage of each compound, or a total additive tumorigenic dose of 200% showed no synergistic or additive tumorigenic effect when fed for two years to rats in studies conducted by Drs. W. B. Deichmann, J. L. Radomski, M. L. Keplinger, W. E. MacDonald and E. M. Glass.

In another chronic feeding experiment, no indication of any toxic effect was evidenced when rats and dogs were fed for two years, and four different strains of mice (totalling 2,834) for their lifetime, various foods (beef stew, evaporated milk, fruit compote, beef, tuna fish, sweet potato and corn) irradiated with gamma radiation. At the death of these animals, all tumors found were examined histopathologically. There was no significant difference between the experimental and control groups. It was concluded that gamma irradiation of the foods tested did not render them carcinogenic to mice, rats and dogs, and it therefore appears that irradiation sterilization with the doses of gamma radiation employed does not increase the carcinogenic hazard of these types of food for man. This work was conducted by Drs. J. L. Radomski, W. B. Deichmann, B. S. Austin, W. E. MacDonald and E. Bernal.

In other departmental research, each of four bladder carcinogens, 2-naphthylamine, 4-aminobiphenyl, 4-nitrobiphenyl and benzidine, was fed individually by capsule to female beagle dogs over a period of three years (1.0 mg/kg/dog, five times a week). Each of another group of female beagle dogs received by capsule 1.0 mg/kg of each of these four compounds, or a total of 4.0 mg/kg/dog, five times a week. These studies have shown that 4-aminobiphenyl is considerably more carcinogenic to the urinary bladder of the beagle dog than previously reported. This compound is definitely more carcinogenic than 2-naphthylamine, 4-nitrobiphenyl or benzidine. While previous experiments with higher doses indicated that the degree of pathological involvement of the urinary bladder appears to be dose-related, it will require at least one additional experiment to demonstrate conclusively whether or not these four compounds, when absorbed in minimal doses, are additive in their carcinogenic action.

In a related study by Drs. Earl Brill and J. L. Radomski, attempts were made to determine the active carcinogenic metabolite of 2-naphthylamine sulfate. Because of the relative nonpolarity of di-(2-amino-1-naphthyl) hydrogen phosphate, it was postulated that this metabolite would freely penetrate the dog's bladder mucosa. An indication of the presence of this metabolite was obtained. Apparently the sulfate penetrates the mucosa in spite of its polarity because of the high concentration present in the urine. One interesting result of the binding studies was that 2-amino-1-naphthol, on binding to bovine serum albumin, gave a different fluorescence maximum than that of the N-hydroxy-2-aminonaphthalene-bovine serum albumin product. This seems to indicate that the N-hydroxy compound itself is capable of binding with the protein without rearranging to 2-amino-1-naphthol.

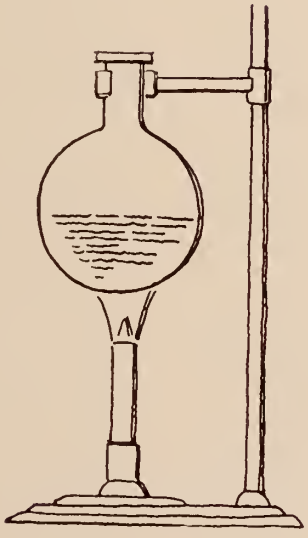
Study of nitro-olefins as potential carcinogens in air pollution is a continuing departmental project. The 21 possible linear, internally conjugated nitro-olefins having from four to nine carbon atoms were synthesized, and their pharmacological, toxicological and physicochemical properties were studied by Drs. W. B. Deichmann, W. E. MacDonald, K. F. Lampe, and I. Dressler, and by Dr. W. A. D. Anderson of the Department of Pathology.

The eye-irritating properties of three representative nitro-olefins were investigated in a joint

study with members of the staff of the Los Angeles County Air Pollution Control District. Several two year chronic inhalation studies were conducted with mice, rats, dogs, guinea pigs and goats.

In five instances, primary adenocarcinoma of the lung was observed in a group of 27 mice exposed to 0.2 ppm of vapors of 3-nitro-3-hexene. No change was observed in the 21 control mice. The histopathologic examination of tissues from the rats revealed primary malignant lesions in the lungs of six of 100 animals exposed to 1.0 ppm of 3-nitro-3-hexene, and in the lungs of 11 of 100 rats exposed to 2.0 ppm. There were no primary malignant lesions in the lungs of the 100 control animals. The histopathologic changes in the lungs of the other animals were characteristic of severe chronic irritation and were dose-related.

Nitro-olefins were identified by Dr. K. F. Lampe in the exhaust of a one cylinder, four cycle internal combustion engine. When isobutylene was used as fuel, 1-nitro-2-methyl-1-propene and its nonconjugated tautomer 1-nitro-2-methyl-2-propene were produced. When 3-hexene was used, 3-nitro-3-hexene was identified in the exhaust. The nitro-olefins are most reactive; they decompose readily in sunlight.



Department of Physiology

GORDON C. RING, Ph.D.

The Department of Physiology continues its major research interest in Gerontology.

In aging rats, the resting metabolism increases whether based on body surface or on whole body K; this increase may be due to less efficient cellular function, a decrease in the proportion of slowly to rapidly metabolizing cells or perhaps an increase in the amount of thyroid hormone in the peripheral tissues.

Dr. Raul De Gasperi has shown that the thyroid glands of older rats release less hormone, and evidence is now accumulating that the peripheral tissues have less of this hormone; therefore, this will not account for the elevated metabolism. In regard to the second alternative, namely the proportion of slowly metabolizing cells, we know that the muscle mass which has a low metabolism diminishes with age. The more older rats exercise, at least in female rats, the higher their resting metabolic rate, so that the second hypothesis is difficult to accept.

Dr. Gordon Ring has shown that irradiation with 1,000 rad of Co^{60} shortens the life span of female rats by about 200 days and brings about macrocytic anemia at a much earlier age.

Dr. Morris Rockstein has given pupae of flies 15,000 r, and this has increased the longevity of female, but not male, flies. He has also studied the mitochondria (sarcosomes) in the flight muscles of flies and suggests that multiplication, growth and lysis of these are continuous processes throughout the life span of the fly.

Dr. Wilson Grant has been studying the influence of age on the formation of both erythrocytes and leukocytes in the rat. The intense stimulation of erythrocyte formation in the young adult rat produced by exposure to a low oxygen tension is completely lacking in the very young rat and diminished in the aging rat. The physiological leukocytosis occurring in the young adult rat as a result of an injection of epinephrine, for example, is currently being examined in the very young as well as in the aging animal.

Dr. Edward Chambers is studying the intracellular distribution of enzymes in the sea urchin egg and their role in the fertilization process. Proteolylic enzymes were found to be located entirely in cytoplasmic granules. He is also studying Na^+ exchange across the membrane and the phosphate transport primarily in relation to the fertilization process. Both Na^+ and K^+ undergo a great increase in rate of exchange across the plasma membrane after fertilization. A phosphate transport system is synthesized and this is a surface carrier immediated process.

Dr. Arthur Nunn is studying glucose transport in the ileum and the importance of ATP-ase activation by magnesium. Studies related to substrate induction of the intestinal mucosa show glucose feeding has resulted in increased absorption and transport of glucose in the normally inactive ileum of the rat. Alterations were also observed in mucosal electrolytes, specifically for potassium, calcium and magnesium. No changes have been observed in the ileal nonspecific phosphatases following glucose induction. Some evidence has been found to indicate magnesium mobilization by such penetrating ions as sodium and potassium which may be related to ATP-ase activation in the sugar transport process.

Department of Psychiatry

JOHN CALDWELL, M.D.

During the past year, research efforts of the Department of Psychiatry have been varied, but heavy emphasis has been placed on the evaluation of psychotropic drugs. The increased importance of drugs used to alter mental processes, be they in the direction of tranquilizing or treating depression, has led to a greater emphasis in evaluating such drugs.

Over 15 investigational drugs which have been approved by the United States Food and Drug Administration for evaluation in patients have been studied by Drs. Burton Goldstein and Walter Dippy. The spectrum of activity of these agents includes the antipsychotic drugs, the antidepressants and the minor tranquilizers.

A five year drug evaluation study sponsored by the National Institutes of Mental Health is being investigated by a team including Drs. John Caldwell, Burton Goldstein, Walter Dippy and Peggy Hutson with Miguel Reyes and Frank Banas. The first phase of the study is an evaluation of the efficacy of two antipsychotic drugs of different chemical structures, a phenothiazine and a butyrophenone. The efficacy of the two compounds studied is measured by clinical judgment, as well as by utilization of rating scales filled out by the physicians, nurses and patients. In addition, a detailed social history is obtained from the patient's immediate relatives. Preliminary evidence indicates that many factors may be useful as drug response predictors. Many of these factors are obtained from the patient's history, and other factors emerge from the various clusters of patients presenting symptoms.

The Departments of Psychiatry and Anesthesiology are currently studying the physiologic effects of electroconvulsive treatment. In particular, the effects of electric current on the cardiac and respiratory systems, and the inherent dangers of electric current, such as cardiac arrhythmias, modifications of intraocular pressure and post convulsive muscle pain, are being studied by Drs. Burton Goldstein, William Gustafson and Frank Moya, Department of Anesthesiology.

In order to evaluate more rapidly and effectively patients in a busy, outpatient psychiatric clinic, a modification of scoring the Minnesota Multiphasic Personality Inventory is under investigation. Utilization of computer techniques in scoring the MMPI provides the psychologist with a full scale analysis and a profile configural analysis. Results obtained will be evaluated by experienced clinical psychologists to establish the degree of agreement between scores and actual description obtained by computers and clinical psychologists. This study is being conducted by Drs. Burton Goldstein and Milton Eber.

Department of Radiology

RAYMOND E. PARKS, M.D.

The Department of Radiology, University of Miami School of Medicine, and Jackson Memorial Hospital, headed by Professor and Chairman Dr. Raymond E. Parks, is composed of four divisions: Diagnosis, Radiation Therapy, Radiation Physics and Nuclear Medicine. The programing of each research group is directed toward the investigation of various projects such as those involving the anatomy and physiology of organ systems in states of health and disease, establishing modes for special procedures and drug therapy and to assess the relative value of radiation protection procedures. This research program covers a wide scope designed specifically to aid the advance of new developments in radiology.

Dr. Manuel Viamonte Jr., Professor of Radiology, is involved in a study encompassing various aspects in the methods of diagnosis of angioscanography of coronary circulation and viscera, macromolecules synthesis for indirect lymphangiography, and for angiographic studies of the renal and cerebral venous circulation. At the present time Dr. Viamonte is also engaged in other projects involving the study of automatic injection using the rate concept of flow delivery and improving the mechanical performance of arterial catheters.

Additional studies encompass: development of collateral circulation to the heart from bronchial arteries, correlative studies in portal hypertension by the comparison of the morphology and dynamics of the portal system, hepatic arteries and veins, azygos system and lymphatic drainage.

Other members of the faculty in the Department of Radiology are engaged in research relating to the microangiographic techniques associated with vascular changes in rat brains with trauma and neoplasms; spondyloepiphyseal dysplasia tarda and its relation to premature osteoarthritis, and Sellar Cranial Index and its correlation between celiac arteriograms and pancreatic scanning.

Dr. Mario Vuksanovic, Assistant Professor in the Department of Radiology, is currently participating in the National Adjuvant Chemotherapy Program for Endometrial Carcinoma along with the Department of Obstetrics and Gynecology and also at present working with the National Cooperative Evaluation of Therapeutic Methods for Carcinoma of the Breast in conjunction with the Department of Surgery. He is also an active participant in a control prospective study of the effect of preoperative irradiation of head and neck epidermoid carcinomas with the University of Florida, Duke University and the Puerto Rico Nuclear Center. Joint participation is currently under way in the Departments of Urology and Radiology, wherein there is an investigation of the radiotherapy effectiveness in the curative treatment of carcinoma of the prostate and of preoperative irradiation of carcinoma of the urinary bladder.

Dr. Maxwell Dauer, Professor of Radiology, and staff members in the Division of Radiological Physics, are engaged in work consisting of comparative studies of lithium fluoride activators in thermoluminescent dosimetry and electronic readout system for thermoluminescent dosimetry. In cooperation with the Department of Physiology, a project is under way conducting studies on ionizing radiation effects in the house fly.

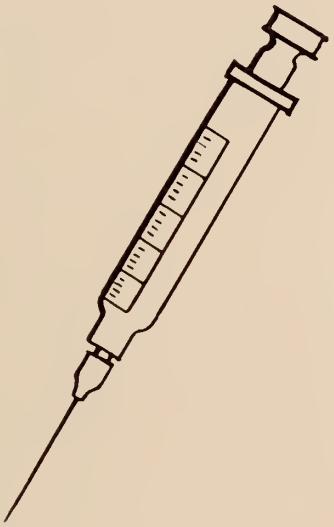
Extensive studies of absorption and metabolic fat C^{14}-labeled insecticide "Dieldrin" are also in progress in the Pharmacology Department. Our department, in association with the staff of the Department of Anatomy, is investigating the relationships of Grenz rays effects on mitotic activity in sea urchin eggs and the effects of radiometric agents on bone marrow capacity to induce spleen

colonies in lethally irradiated animals. During the past year, substantial progress has been made by Dr. Albert J. Gilson, Assistant Professor of Radiology, working in the Division of Nuclear Medicine, on the bone density determination by using monoenergetic isotopes and with the Department of Neurology and Pathology, investigating localization of kinetics of radioactive compounds in brain tumors of monkeys and the blood brain barrier.

At the present time Dr. Robert C. Flipse,† Assistant Professor, in association with Dr. Vuksanovic, is continuing the accumulation of data[1] on brain scan findings in primary and secondary neoplasms,[2] pulmonary function in bullous emphysema as evaluated by inhalatory and perfusion scans[3] and sector count placentography versus pictoral placental scans.

The qualified physician must continue his education throughout his entire medical career and develop those procedures which he knows how to do well, accepting new roles and new challenges.

†Deceased



Department of Surgery

W. DEAN WARREN, M.D.

Extensive study of patients with cirrhosis and portal hypertension before and after portacaval shunts is being researched by Drs. W. Dean Warren, Robert Zeppa and John J. Fomon. Hepatic blood flow is estimated, utilizing radioactive colloidal gold methodology. Hepatic venography and splenoportography are also utilized as part of the evaluation. The evidence accumulated strongly suggests that in those patients in whom portacaval shunt causes sudden serious decrease in total hepatic blood flow, a poor result from portacaval shunting may be anticipated. Complementary to these studies are investigations into protein metabolism in cirrhotic patients, utilizing appropriate methodology including amino acid analysis. The kinetics of hepatic lymph production are being studied in some depth.

Studies in chronic cystic mastitis are being pursued in depth by Dr. Robert Zeppa. Preliminary data have suggested that chronic cystic disease of the breast may, in fact, be a metabolic disorder. Work so far has shown that estrogen in catalytic concentrations will cause the release of histamine from exceedingly thin slices of human breast tissue.

Dr. Zeppa is also continuing studies in the hemodynamics of gastric acid secretion. Studies of peripheral vascular disease by Drs. Warren and Fomon are concerned with an evaluation of the technic of rheography as a quantitative measure of peripheral blood flow. In a careful clinical study, stringently analyzed by well accepted statistical methods, it has been found the measurement of electrical impedance at this time cannot be utilized to measure accurately peripheral blood flow.

An active, clinical and laboratory research program aimed at a diminution in mortality from thermal injuries is being conducted by Dr. Hiram Polk. Burned patients are admitted to a burn unit, and ongoing studies comparing various methods of treatment of burn shock and control of infection are carried out. The 0.5% silver nitrate solution therapy, as outlined by Dr. Moyer in St. Louis, is being evaluated. Among the studies involved are approximations of the transcutaneous sodium loss from burns treated with or without silver nitrate. Parallel to the studies on patients, animal studies concerned with the rates of adherence of thin split-thickness skin grafts to granulation tissue are being conducted.

In a joint project by Dr. Gilbert Snyder, Plastic Surgery, and Dr. Bernard Linn, General Surgery, complement suppression in induced immune tolerance is under study. The hypothesis is that complement is involved in the graft rejection phenomenon, if in fact this is an antigen-antibody response.

The fate of injected silicone compounds is being examined in the Division of Plastic Surgery. In view of the great clinical interest which has become apparent in recent years in the Dow-Corning medical grade dimethylpolysiloxane fluid of 350 centoscope viscosity, these studies have important clinical implications.

A large portion of research efforts in the Thoracic and Cardiovascular Surgery Division is concerned with the solution of cardiac problems and is being conducted by Drs. James R. Jude and Carlos Lombardo. Studies utilizing the techniques of diastolic augmentation are under way, in the attempt to augment arterial pressure while lowering systolic pressure during systole in order to decrease the work load on the heart and increase coronary perfusion. They seek to determine whether or not there is any increased left ventricular function under the conditions of left ventricular myocardial ischemia during the course of diastolic augmentation. In other work that is concerned with myocardial infarction, the effects of acute resection of the infarcted myocardium on

survival of animals suffering from acute infarction is being investigated.

Localization of areas of chronic ischemia and revascularization of the myocardium are being studied. Based on the work of Libow and Viamonte, the bronchial arteries in the lingular lobe of the left lobe are being considered as a possible source of collateral arterial blood supply. Increased bronchial arterial blood supply to the lingular segment is developed by ligation of the lingular pulmonary artery. In animals that have suffered constriction of the orifice of the main left coronary artery, utilizing ameroid constrictors, a properly prepared lingular segment of the lung is applied to the de-epicardialized left ventricle. Collateral circulation to the myocardium is studied by cineangiography.

Treatment of varying total heart block is being carried out in conjunction with Dr. Louis Lemberg and Dr. Augustin Castellanos Jr., Division of Cardiology. In this work, an implantable demand-type cardiac pacemaker is used. There are cogent reasons for serious consideration of this type of therapy because of the danger of competitive rhythms between the continuous type of cardiac pacemaker and the patient's own autogenous conductive heart beat. Other studies are concerned with the treatment of pulmonary emboli, considerations of peripheral revascularization techniques and the comparison of radiotherapy as opposed to surgical therapy in the treatment of carcinoma of the lung.

In orthopedics, a clinical research program is being carried out by the Rehabilitation Services under the direction of Dr. Augusto Sarmiento. This service is vitally concerned with clinical research studies of various disorders of the musculoskeletal system. Among these are projects dealing with amputations, tibial fractures and fractures in the aged. Immediate postoperative prosthetic fitting of the amputee, which was initially advocated by Dr. Weiss of Warsaw, has been modified and perfected in this institution.

The nonsurgical treatment of urinary incontinence with injectable Teflon is being evaluated by Drs. John Harper and Victor Politano, Division of Urology. The experimental studies were first carried out on dogs and increased urethral resistance to varying flow rates has been evident immediately after the installation of the Teflon. Examination of the Teflon injection area has revealed minimal gross reaction and microscopic study has revealed some fibroplastic proliferation in the area of the Teflon particles. Several women in whom urinary incontinence had developed because of damage to the urethra have been treated in this manner. This treatment has given good results in four out of five female patients and there have been no complications other than transient local discomfort at the injection sites.

Extensive studies in the physiology of hearing are being conducted under the supervision of Dr. Ernest A. Peterson, Division of Otolaryngology. Utilizing the cochlear microphonic as an index of peripheral auditory function, peripheral auditory responses in selected mammals are being studied. While the method does not provide a direct index of hearing in terms of central nervous system integration of behavioral responsibility to sound stimuli, nonetheless, the method does offer a means of deriving quantitative statements about peripheral auditory functioning in which input-output relations can be carefully and consistently specified. The studies to date have indicated that auditory sensitivity is anything but uniform in the class mammalia.

Research involved with ultrasonic overstimulation of the ear is also being actively pursued. Understanding of the manner and way in which sounds affect the inner ear, and thus the way in which auditory stimuli are then coded along the basilar membrane, has been greatly aided by observing patterns of damage arising from overstimulation.

Other work in this division includes experiments designed to determine types and extent of trauma necessary to cause necrosis of the incus, others which are attempting to develop a laryngeal prosthesis and others attempting to detect eustachian tube function from patterns of pressure changes which are attendant upon swallowing.



President's Page

1967: A New Year – A New Outlook

January 1967 marks the beginning of the first full year for complete implementation of Title 18 of PL 89-97. It also will be the year in which all states might implement Title 19 in some degree; therefore, it means that before the year is over, probably some 60 million or more of our citizens will be provided medical care under PL 89-97. This number is almost one third of our population. We must continue to adjust our thinking, our philosophy and our actions to conform to this established fact. The pattern of medical care has been set. We must do all we can to see that our patients continue to receive quality medical care no matter what the circumstances are and that the control and direction of medical care remain rightly in the hands, and under the direction, of physicians.

I, therefore, propose some resolutions for the New Year and for the years to come. As a physician, I firmly resolve that, in accordance with my training, ability and ethical code, I will do my best to:

1. Obey the law of the land as it pertains to medical care and strive to see that it works in the best interests of my patients.
2. Provide quality medical care to all of my patients whether they be private patients or those under medical care programs.
3. Interest and inform myself concerning all programs related to medical care so that I may intelligently discuss with and advise my patients and others about them.
4. Advise my legislators concerning medical care programs and their proper implementation in the best interests of my patients and the patient-physician relationship.
5. Be fair and honest in my fees so that I—and my profession— will not be accused of holding self interest above interest in the care of my patients.
6. Demonstrate to the public by words, deeds and actions that my main reason for being is to take care of my patients to the best of my ability, training, physical and mental resources and within the bounds of my ethical code.

If each of us within himself does his best according to these resolutions, then we need no public relations program, we need no apologists, we need no "image." Each of us can say, "I am a physician and I am proud to be one. I am beholden to no one except myself and my God."

George S. Palmer

New from Du Pont

Symmetrel®

(Amantadine HCl)

The first oral chemical virostat for the prevention of influenza A_2



Influenza virus
Protein shell enclosing the core of nucleic acid (RNA)—artist's representation

The incidence of influenza A_2. In this country, where influenza is one of the leading causes of morbidity, influenza A_2 (Asian) continues to be a serious medical problem. In 1957 influenza A_2 was responsible for approximately 40,000 excess deaths in a three-month period. Since that year the most prevalent influenza virus has been A_2 (Asian).

What is Symmetrel®? "Symmetrel" (amantadine HCl) is a new synthetic chemical which acts as a molecular barrier to virus penetration. It provides for the first time specific oral medication for the prevention of respiratory infections caused by influenza A_2 (Asian) viruses—an entirely new approach in preventive medicine.

For prescribing information, see last page of this presentation

What Symmetrel® (amantadine HCl) means to you

...the first and only oral chemical agent to prevent influenza A_2 (Asian).

...not a vaccine or antibiotic, but a new synthetic chemical unrelated to any other chemotherapeutic agent.

...unique mode of action: prevents virus penetration of the host cell without affecting vital cell functions.

...specifically active against all influenza A_2 viruses tested to date.

...not indicated for the prevention of influenzal or respiratory illness other than influenza A_2 or for the treatment of established disease.

...does not interfere with normal antibody response; acts in concert with pre-existing antibody.

What Symmetrel® means to your patient

...possible immediate influenza A_2 protection when taken following suspected contact.

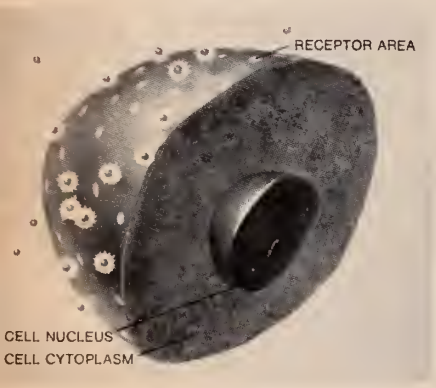
...may be particularly useful during outbreaks or epidemics and for high-risk patients in whom the occurrence of influenza A_2 is especially hazardous.

...a high degree of safety in clinical use.

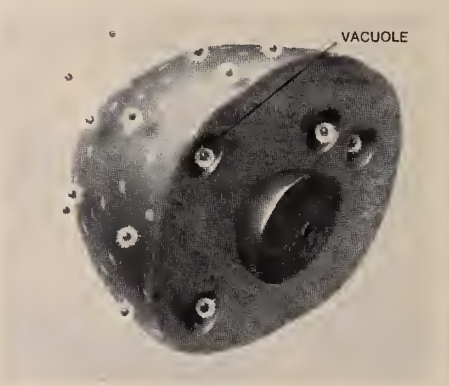
...simple once daily or b.i.d. dosage.

The mode of action of Symmetrel®

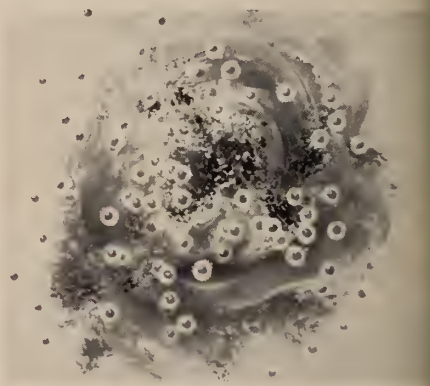
How the influenza virus invades and destroys the untreated cell



1 Viruses outside the cell attach themselves to specific cell receptor areas

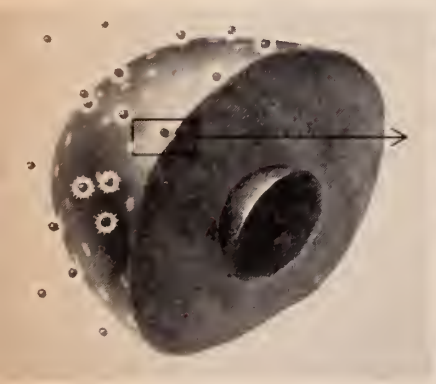


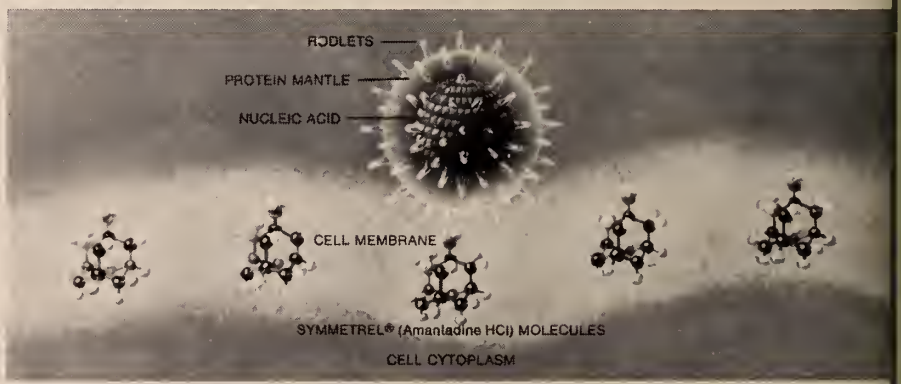
2 The virus is incorporated into a vacuole within the cell. From this vacuole the virus nucleic acid passes into the cell cytoplasm



3 The virus nucleic acid then directs the cell to produce both new virus nucleic acid and virus protein coat material which aggregate to form new virus particles. This process leads to the release of new virus particles and eventual destruction of the cell

How Symmetrel® (Amantadine HCl) prevents virus invasion[1]





Our current knowledge leads us to believe "Symmetrel" acts as a molecular barrier to influenza virus penetration. Shown here in a greatly enlarged section, "Symmetrel"—located at the cellular membrane—effectively prevents (blocks) virus penetration. Thus, "Symmetrel" does not directly destroy the virus particle but acting as a virostat prevents the cycle of virus penetration, virus replication, and cell destruction that is characteristic of virus invasion of animal cells (tissue). *Artist's conception based on current scientific knowledge.*

1. "Mode of Action of the Antiviral Activity of Amantadine in Tissue Culture", Hoffmann, C. E.; Neumayer, E. M.; Haff, R. F.; and Goldsby, R. A., Journal of Bacteriology *90*,623 (1965).

fety of Symmetrel® Confirmed. When used as indicated, is generally well tolerated. No kidney, er, bone marrow, or hematological disturbances have been observed.

escribing Information

dications: "Symmetrel" is indicated for the preven- n (prophylaxis) of influenza A_2 in persons of all age ups. Early use is recommended, preferably before as soon as possible after actual or suspected con- t with individuals suffering from influenza A_2. ymmetrel" should especially be considered for h influenza-risk patient groups such as those suf- ing from chronic debilitating diseases and elderly rsons.

ntraindications: Not indicated for the prevention influenzal or respiratory illness other than influ- za A_2 or for the treatment of established disease.

arnings: Administration to patients with central rvous system disease, particularly geriatric patients th cerebral arteriosclerosis, and patients with a story of epilepsy or other "seizures," requires strict servation for possible untoward effects (see Ad- rse Reactions). Patients taking psychopharmaco- gic drugs, central nervous system stimulants, or coholic beverages should be observed for possible idence of intolerance. Those patients who experi- ce central nervous system effects or blurring of sion should be cautioned against driving or working situations where alertness is important.

No teratogenic effects have been seen in reproduc- e studies in rats and rabbits. Studies in pregnant omen have, however, not been done and use of this ug in women of childbearing age should be under- ken only after weighing the possible risks to the tus against benefit to the pregnant patient. It should t be administered to nursing mothers since it is not own whether the drug is secreted in the milk.

ecautions: Ineffective against bacterial infections. atients should be observed for idiosyncratic reac- ons as with all new drugs. Geriatric patients with e-existing serious medical illnesses with mental or ysical deterioration should be followed carefully edically while taking "Symmetrel." (See Adverse eactions.)

dverse Reactions: With higher than indicated doses anifestations of central nervous system effects such as nervousness, insomnia, dizziness, lightheadedness, drunken feeling, slurred speech, ataxia, inability to concentrate and some psychic reactions including depression and feelings of detachment were seen. Occasional blurred vision was reported at higher doses. Some of the milder and less pronounced symptoms above have been reported in a small number of patients taking the recommended dosage of 200 mg per day. Those were mostly transient and disappeared with continued administration of the drug. Some geriatric patients developed paranoid or hallucinatory behavior and became unmanageable while taking 200 mg daily. Medically unselected seriously deteriorated geriatric patients showed poor clinical tolerance after several weeks of daily dosing with 200 mg per day. One elderly patient with a history of prior cerebrovascular accident developed visual hallucinations and grand-mal convulsions while on drug at 800 mg per day. Some cases of dry mouth, gastrointestinal upset and skin rash and rarely, tremors, anorexia, pollakiuria, and nocturia have been also reported.

Safety: When used as indicated, is generally well tolerated. No kidney, liver, bone marrow, or hematological disturbances have been observed.

Dosage: *Adults:* Two 100 mg capsules (or 4 teaspoonfuls of syrup) as a single daily dose or the daily dose may be divided into one capsule of 100 mg (or 2 teaspoonfuls of syrup) twice a day.

Children: 1 yr.—9 yrs. of age: Calculate total daily dose on the basis of 2 mg to 4 mg per pound of body weight per day (but not to exceed 150 mg per day). Daily dose, given as the syrup, should be given in 2 or 3 equal portions.

9 yrs.—12 yrs. of age: Total daily dose 200 mg given as one capsule of 100 mg (or 2 teaspoonfuls of syrup) twice a day.

How Supplied: *Capsules:* Bottles of 100. Each red, gelatin capsule contains 100 mg amantadine HCl.
Syrup: Bottles of 1 pint. Each 5 ml (1 teaspoonful) contains 50 mg amantadine HCl.

DUPONT

Symmetrel®

(Amantadine HCl)

A molecular barrier to virus penetration

arrest diarrhea

in • gastroenteritis • acute infections



LOMOTIL®

Each tablet and each 5 cc. of liquid contains:

diphenoxylate hydrochloride . . . . . 2.5 mg.

(Warning: May be habit forming)

atropine sulfate . . . . . 0.025 mg.

Effectiveness: Lomotil possesses a unique degree of effectiveness in both acute and chronic diarrhea.

Convenience: Lomotil is supplied as small, easily carried, easily swallowed tablets and as a pleasant, fruit-flavored liquid.

Versatility: The therapeutic efficiency, safety and convenience of Lomotil may be used to advantage alone or as adjunctive therapy in diarrhea associated with:

- **Ulcerative colitis**
- **Acute infections**
- **Irritable bowel**
- **Regional enteritis**
- **Drug therapy**
- **Food Poisoning**
- **Functional hypermotility**
- **Malabsorption syndrome**
- **Ileostomy**
- **Gastroenteritis and colitis**

Dosage: For correct therapeutic effect—Rx correct therapeutic dosage. The recommended initial daily dosages, given in divided doses, until diarrhea is controlled, are:

Children: Age	Total Daily Lomotil Dosage	Lomotil Liquid Dosage (Each teaspoonful [4 cc.] contains 2 mg. of diphenoxylate HCl)
3-6 months	3 mg.	½ tsp. 3 times daily
6-12 months	4 mg.	½ tsp. 4 times daily
1-2 years	5 mg.	½ tsp. 5 times daily
2-5 years	6 mg.	1 tsp. 3 times daily
5-8 years	8 mg.	1 tsp. 4 times daily
8-12 years	10 mg.	1 tsp. 5 times daily

Adults: 20 mg. (2 tsp. 5 times daily or 2 tablets 4 times daily) Based on 4 cc. per teaspoonful. Maintenance dosage may be as low as one-fourth the initial daily dose.

Precautions: Lomotil, brand of diphenoxylate hydrochloride with atropine sulfate, is a Federally exempt narcotic preparation of very low addictive potential. Recommended dosages should not be exceeded. Lomotil should be kept out of reach of children since accidental overdosage may cause severe respiratory depression. Lomotil should be used with caution in patients with impaired liver function and in patients taking addicting drugs or barbiturates. The subtherapeutic amount of atropine is added to discourage deliberate overdosage.

Side Effects: Side effects are relatively uncommon but among those reported are gastrointestinal irritation, sedation, dizziness, cutaneous manifestations, restlessness, insomnia, numbness of extremities, headache, blurring of vision, swelling of the gums, euphoria, depression and general malaise.

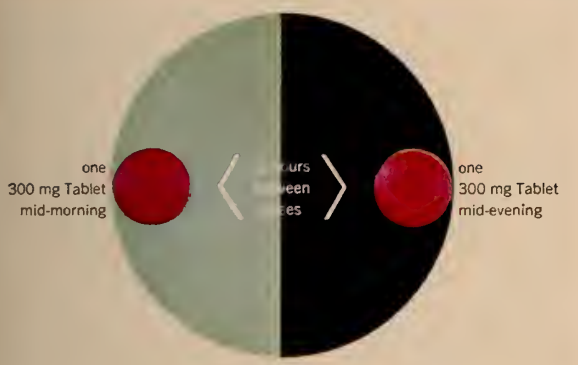


why wonder about a drug

when you know

DECLOMYCIN®
DEMETHYLCHLORTETRACYCLINE

is effective b.i.d.



It's made for b.i.d.

Effective in a wide range of everyday infections — respiratory, urinary tract and others — in the young and aged — the acutely or chronically ill — when the offending organisms are tetracycline-sensitive.

Contraindication — History of hypersensitivity to demethylchlortetracycline.

Warning — In renal impairment, usual doses may lead to excessive systemic accumulation and liver toxicity. Under such conditions, lower than usual doses are indicated and, if therapy is prolonged, serum level determinations may be advisable. A photodynamic reaction to natural or artificial sunlight has been observed. Small amounts of drug and short exposure may produce an exaggerated sunburn reaction which may range from erythema to severe skin manifestations. In a smaller proportion, photoallergic reactions have been reported. Patients should avoid direct exposure to sunlight and discontinue drug at the first evidence of skin discomfort.

Precautions and Side Effects — Overgrowth of nonsusceptible organisms may occur. Constant observation is essential. If new infections appear, appropriate measures should be taken. Use of demethylchlortetracycline during tooth development (last trimester of pregnancy, neonatal period and early childhood) may cause discoloration of the teeth (yellow-grey-brownish). This effect occurs mostly during long-term use but has also been observed in short treatment courses. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment. Side reactions include glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis and dermatitis. If adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy. Anaphylactoid reactions have been reported.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products.

Capsules: 150 mg; *Tablets:* film coated, 300 mg, 150 mg, and 75 mg of demethylchlortetracycline HCl.

LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York
417-6—4076

Lederle

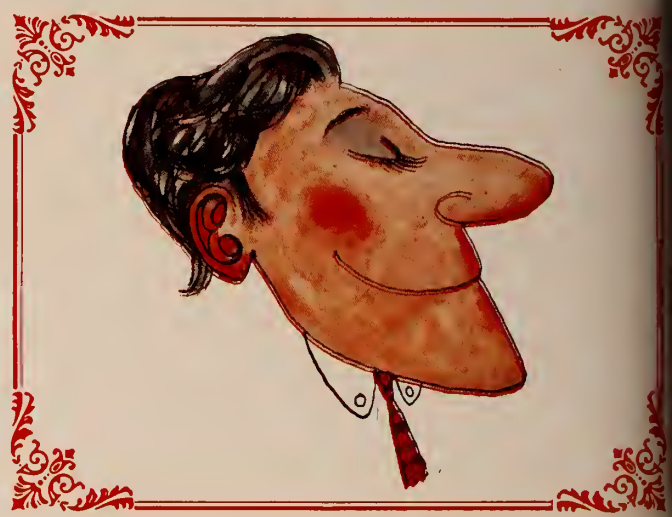
for noses of every description, one safe and sure prescription:

Otrivin®

(xylometazoline CIBA)
on Rx only







■ quickly relieves congested nose
■ action is gentle, yet prolonged
■ side effects are minimal

INDICATION: Nasal congestion. CONTRAINDICATION: Do not use in patients sensitive to small doses of sympathomimetic substances. WARNINGS: Prolonged or excessive use may cause rebound congestion. Use cautiously in patients with hyperthyroidism, coronary artery disease, hypertension, and diabetes. CAUTION: Do not shake Nasal Spray. Rinse Nasal Solution dropper or Nasal Spray tip in hot water after each use. No more than one person should use the same dropper bottle or nasal spray.
SIDE EFFECTS: Occasional local reactions: rebound congestion, slight burning or stinging, sneezing, dry nose. Occasional systemic effects: headache, drowsiness, lightheadedness, insomnia, palpitations. Overdosage in young children may produce profound sedation. DOSAGE: **Adults:** *Nasal Solution*—2 or 3 drops in each nostril every 4 to 6 hours. *Nasal Spray*—Squeeze rapidly once or twice in each nostril every 4 to 6 hours. **Children under 12:** *Pediatric Nasal Solution*—2 or 3 drops in each nostril every 4 to 6 hours. One drop should be used in infants under 6 months. *Pediatric Nasal Spray*—Squeeze rapidly once in each nostril holding tube upright; repeat every 4 hours as necessary. SUPPLIED: OTRIVIN® hydrochloride (xylometazoline hydrochloride CIBA) *Nasal Solution,* 0.1%; dropper bottles of 1 fluidounce, bottles of 1 pint. *Nasal Spray,* 0.1%; plastic squeeze tubes of 15 ml. *Pediatric Nasal Solution,* 0.05%; dropper bottles of 1 fluidounce. *Pediatric Nasal Spray,* 0.05%; plastic squeeze tubes of 15 ml. *Nasal Solutions* contain either 0.1% or 0.05% xylometazoline hydrochloride, triethanolamine, hydrochloric acid, sodium chloride, and phenylmercuric acetate 1:50,000 as preservative in water. *Nasal Sprays* contain either 0.1% or 0.05% xylometazoline hydrochloride, potassium phosphate monobasic, potassium chloride, sodium phosphate dibasic, sodium chloride, and benzalkonium chloride 1:5000 as preservative in water. *Consult complete literature before prescribing.*
CIBA Pharmaceutical Company, Summit, N. J.

CIBA

2/3329 MKL-1



Photo professionally posed

Mike expects a penicillin injection. He's about to be pleasantly surprised.

His physician is going to prescribe an oral penicillin —Pen•Vee® K (potassium phenoxymethyl penicillin). It's usually so rapidly and completely absorbed that therapeutic serum levels are produced in 15 to 30 minutes. Higher serum levels generally last longer than with oral penicillin G.

Indications: Infections due to pathogens susceptible to oral penicillin G. Prophylaxis of rheumatic fever in patients with previous history of the disease.

Precautions: Skin rash, symptoms resembling those of serum sickness, or other manifestations of penicillin-allergy may occur. Measures for treating anaphylaxis should be readily available: epinephrine, oxygen and pressor drugs for relief of immediate allergic reactions; antihistamines and corticosteroids for delayed effects. Penicillin may delay or prevent the appearance of primary syphilitic lesions. Patients with gonorrhea who are suspected of concurrent syphilitic infections should be tested serologically for at least 3 months. Where lesions of primary syphilis are suspected, dark-field examination should precede use of penicillin. As with other antibiotics overgrowth of nonsusceptible organisms may occur; if so, discontinue and take appropriate measures. Treat β-hemolytic streptococcal infections with full therapeutic dosage for at least 10 days to prevent development of rheumatic fever or glomerulonephritis.

Contraindications: Infections caused by nonsusceptible organisms; history of penicillin sensitivity.

Composition: Tablets—125 mg. (200,000 units) and 250 mg., (400,000 units); Liquid—125 mg. (200,000 units) and 250 mg. (400,000 units) per 5 cc.

Wyeth Laboratories Philadelphia, Pa.

ORAL **Pen•Vee® K**

(potassium phenoxymethyl penicillin) Wyeth®

How long will it take him to recover from the flu if he just doesn't care?



Does he really care?
Is he alert, encouraged, positive and optimistic about getting out of bed and back to work soon?
Or is he giving in to the depressing impact of confinement?
When functional fatigue complicates convalescence, Alertonic can help...

Pleasant-tasting Alertonic is pipradrol hydrochloride—an effective cerebral stimulant whose gentle analeptic action helps counteract the apathy and inertia that so often delay convalescence—together with an excellent vitamin and mineral formula, in a satisfying 15% alcohol vehicle.

Nothing fosters confidence and a sense of well-being better than your own personal warmth, understanding and encouragement together with Alertonic to help insure prompt response.

Adequate dosage is important: Prescribe Alertonic—one tablespoonful t.i.d., 30 minutes before meals...tastes best chilled.
And for your patient's sake, prescribe Alertonic in the convenient, economical one-pint bottle.

Alertonic®

Available Only On Prescription

Each 45 cc. (3 tablespoonfuls) contains: alcohol, 15%; pipradrol hydrochloride, 2 mg.; thiamine hydrochloride (vitamin B_1) (10 MDR*), 10 mg.; riboflavin (vitamin B_2) (4 MDR), 5 mg.; pyridoxine hydrochloride (vitamin B_6), 1 mg.; niacinamide (5 MDR), 50 mg.; choline,† 100 mg.; inositol,† 100 mg.; calcium glycerophosphate, 100 mg. (supplies 2% MDR for calcium and for phosphorus) and 1 mg. each of the following: cobalt (as chloride), manganese (as sulfate), magnesium (as acetate), zinc (as acetate), and molybdenum (as ammonium molybdate).

*Multiple of adult Minimum Daily Requirement supplied.
†The need for these substances in human nutrition has not been established.

Indications: 1. Functional fatigue such as that often associated with: a depressing life experience or stressful time of life; advancing years; convalescence; limited activity or confinement. 2. Poor appetite and vitamin-mineral deficiency as they occur in: patients having faulty eating habits; geriatric patients who are losing interest in food; patients convalescing from debilitating illness or surgery.

Contraindications: As with other drugs with CNS stimulating action, Alertonic is contraindicated in hyperactive, agitated or severely anxious patients and in chorea or obsessive compulsive states.

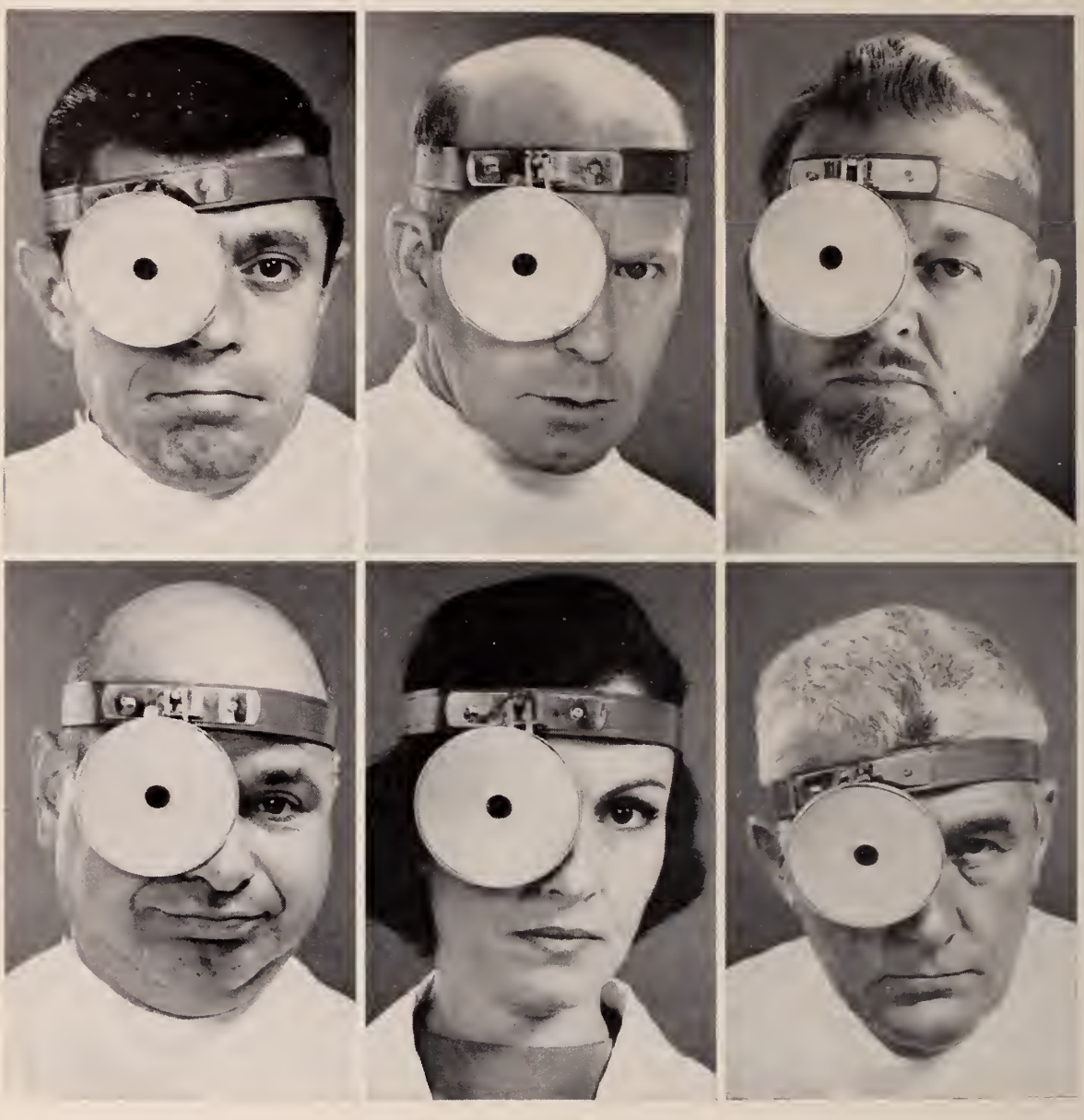
Side effects: Reports of overstimulation have been rare. Patients who are known to be unduly sensitive to the effects of stimulant drugs should be observed carefully in the initial stages of treatment.

Dosage: Adults, 1 tablespoonful; children (over 15 years old), 1 to 2 teaspoonfuls; children (4 to 15 years old), 1 teaspoonful. To be taken three times daily 30 minutes before meals.

Merrell

THE WM. S. MERRELL COMPANY
Division of Richardson-Merrell Inc.
Cincinnati, Ohio 45215

6-7907



"All Otolaryngologists are Alike"

Just look at them and you can see how much they have in common. Besides, they all go through pretty much the same training, and pass the same kinds of tests, and measure up to the same sort of standards. Therefore, all otolaryngologists are alike. Right?

Wrong! But that's no more preposterous than what some people say about aspirin. Namely: since all aspirin is at least supposed to come up to certain required standards, then all aspirin tablets must be alike.

Bayer's standards are far more exacting. In fact, there are at least nine *specific differences* involving moisture content, purity, potency and speed of tablet disintegration, which make the manufacture of Bayer® Aspirin so different.

These Bayer standards result in significant product benefits, including gentleness to the stomach and product stability, that enable Bayer Aspirin tablets to *stay* strong and gentle until they are taken.

So next time you hear someone say that *all* aspirin tablets are alike, you can say, with confidence, that "it just isn't so."

You might also say that all otolaryngologists aren't alike, either.







the tar trapped in
Tar Gard* in one year ...



exceeds the weight
of four packs of cigarettes

Use this statistic to help convince your patients to stop smoking.

Presentation of a familiar point of reference giving some indication of the amount of tar in cigarette smoke could help influence your cigarette smoking patients to quit.

Let Tar Gard help. In an independent study by Curtis and Tompkins, Analytical Chemists, San Francisco, it was estimated that over a 365 day period, using twenty filter cigarettes a day as a base, the average amount of tar trapped in the unique* Tar Gard filter holder was 0.29 lb., more than the weight of four packs of cigarettes.** Use this statistic to give your patients a more concrete grasp of the amount of tar in cigarette smoke.

Support with visual demonstration. Combine reference to this statistic with a visual demonstration in your office. Show tar actually being isolated from cigarette smoke.

All you have to do is have a patient smoke four cigarettes through the Tar Gard Demonstration Unit. When he sees the amount of tar trapped in the transparent mouthpiece chamber and realizes that normally this would stay in the mainstream of the smoke – the smoke he inhales – this, related to the number of cigarettes he has smoked over a 365 day period could prove to be the most dramatic visual proof of the health hazards of smoking you could show him... enough to force him to draw his own conclusions as to whether the smoking habit is worth the price he might have to pay... enough to convince him to quit.

Complete and mail coupon for your free Tar Gard Demonstration Unit.

*Technically, Tar Gard is not a filter. It is a patented tar trapping device based on the principle of the Venturi tube, such as is employed in the bedside respirator used in critical respiratory management, the vaporizer and the aspirator. In Tar Gard, as cigarette smoke is drawn into the mouthpiece, the pressure energy of the tar-filled smoke is accelerated (to approximately 200 mph) and then stopped abruptly by an impingement barrier, where tars are trapped.

**36 sealed packs of a leading filter cigarette were weighed and divided by 9 to give an average four pack weight of .23 lb.

Tar Gard Company, 2 Pine Street, San Francisco, Calif. 94111

☐ Please send me free professional Tar Gard demonstration unit.

☐ Please send me_____doz. regular Tar Gard retail units at special professional price of $10.00 per ½ doz.; minimum order. ($1.67 each – usually retails at $2.95.)

☐ Check enclosed. ☐ Please bill me.

Name _____

Type of Practice _____

Address _____

City _____ State _____ Zip _____

TAR GARD FMJ-2



when he just can't sleep

Tuinal®

Sodium Amobarbital and Sodium Secobarbital



Tuinal helps wakeful patients fall asleep fast, stay sleep all night.

Indications: Tuinal, comprised of equal parts of Seconal® Sodium (sodium secobarbital, Lilly) and Amytal® Sodium (sodium amobarbital, Lilly), is indicated for prompt and moderately long-acting hypnosis.

Contraindications: Barbiturates should not be administered to anyone with a history of porphyria, nor should they be given in the presence of uncontrolled pain, because excitement may result.

Warning: May be habit-forming.

Precautions: Tuinal should be used cautiously in patients with decreased liver function, since prolongation of effect may occur.

Adverse Reactions: Idiosyncrasy, such as excitement, hangover, or pain, may appear. Hypersensitivity reactions occur in some patients, especially in those with asthma, urticaria, or angioneurotic edema.



Dosage: 1½ to 3 grains at bedtime.

Supplied: ¾, 1½, and 3-grain Pulvules®.

Additional information available to physicians upon request.

Eli Lilly and Company • Indianapolis, Indiana 46206

Lilly

700196

Need a pocket watch?



See your jeweler!

Need another car?



Visit your auto dealer!

Need optical services?

GUILD ℞ OPTICIANS ®

Call on an expert —

YOUR GUILD OPTICIAN!

Just as the jeweler is trained in his field, and the auto dealer is knowledgeable in his business, the Guild Optician is an expert in *his.*

We say "Call on an expert . . ." because your local Guild Optician *is* an expert in mechanical optics. You know he is equipped to handle your most critical cases, both in experience and in training. You know also, because he is a Guild Member, that his standards are high, and that you can depend on him to accurately translate your patient's prescription and to render such after service as your patient might need, for the life of that prescription.

Your local Guild Optician also is an expert at working with your patient in an understanding manner when it comes to the styling and fit of your patient's frame. His stocks reflect not only the most modern fashions, but also the conservative styles that have lasted over the years.

There are, of course, many other areas in which your Guild Optician may be highly skilled: sub-normal vision cases, aphakic cases, contact lenses.

When *you* need optical services, think *first* of your Guild Optician! *Guild of Prescription Opticians of Florida.*

USING GUILD SKILLS AND EXPERIENCE TO SERVE YOUR PATIENTS

Anclote
MANOR
FOUNDATION
SAMUEL G. HIBBS, M.D.
PRESIDENT OF THE BOARD AND FOUNDER
(A Non-Profit Organization)
TARPON SPRINGS, Florida
Telephone 937-4211

Member National Association
of Private Psychiatric Hospitals,
Approved by
American Psychiatric Association,
Accredited by Joint Commission
on Accreditation of Hospitals.

A modern hospital offering intensive and comprehensive psychiatric treatment. The completeness of the unification of the entire staff makes the approach unique, but not radical. All acceptable treatment modalities are used but absolute precedence is given to psychotherapy, individual and group, with special attention to the family process.

LORANT FORIZS, M.D., F.A.P.A.
MEDICAL DIRECTOR
WALTER H. WELLBORN, JR., M.D., F.A.P.A.
CLINICAL DIRECTOR
THEODORE E. GAGLIANO, M.D., F.A.P.A., DIPLOMATE
DIRECTOR OF ADMISSIONS,
EDUCATION AND TRAINING

STAFF PSYCHIATRISTS
RONALD M. BACKUS, M.D., DIPLOMATE
JOHN R. ERWIN, M.D., DIPLOMATE
LAWRENCE J. LEWIS, M.D.
RICHARD L. MEADOWS, M.D., DIPLOMATE
CHARLES J. SAPORITO, M.D.
ROBERT G. ZEITLER, M.D.

STAFF PSYCHOLOGISTS
PATRICK J. DIGNAM, PH.D.
DONALD R. FARREN, PH.D.
JAMES B. MORRIS, PH.D.



P. L. DODGE MEMORIAL HOSPITAL
M. G. ISAACSON, M.D.
Medical Director
1861 N.W. South River Drive
Miami, Florida
Phone 379-1448

A nonprofit-voluntary hospital for the treatment of nervous and mental disorders and the problems of drug addiction and alcoholic habituation. Modern diagnostic and treatment procedures including—Psychotherapy, Insulin, & Electroshock, when indicated. Adequate facilities for recreation and out-door activities. Admissions are made without regard to race, color or national origin.

Information on request
Member NAPPH, American Psychiatric Assn., & American Hospital Assn.

Thomas B. Slade — Fifty Years in Florida — J. Beatty Williams

Surgical
SUPPLY COMPANY

HAMILTON — RITTER — SKLAR — BURDICK
CLAY-ADAMS — B-D — BARD-PARKER — TYCOS
BAUM — WELCH-ALLYN AND MANY, MANY OTHERS

Ph. 355-8391 — P. O. Box 2580 — 1050 W. Adams Street — Jacksonville, Fla. 32203

CONVENTION PRESS

2111 NORTH LIBERTY ST.
JACKSONVILLE, FLORIDA
32206

QUALITY BOOK PRINTING
PUBLICATIONS BROCHURES

WHATEVER your first requisites may be, we always endeavor to maintain a standard of quality in keeping with our reputation for fine work —and at the same time provide the service desired. Let CONVENTION PRESS help solve your printing problems by intelligently assisting on all details.

Announcing The Thirtieth Annual Meeting of
THE NEW ORLEANS GRADUATE MEDICAL ASSEMBLY
Conference Headquarters — Roosevelt Hotel
March 6, 7, 8, 9, 1967

GUEST SPEAKERS

John Steinhaus, M.D., Atlanta, Ga.
Anesthesiology
H. R. Reichman, M.D., Salt Lake City, Utah
Colon and Rectal Surgery
Rees B. Rees, M.D., San Francisco, Calif.
Dermatology
Jose M. de la Vega, M.D., Mexico, D. F.
Gastroenterology
Nicholas J. Pisacano, M.D., Lexington, Ky.
General Practice
Gordon W. Douglas, M.D., New York, N. Y.
Gynecology
Robert C. Hartmann, M.D., Nashville, Tenn.
Internal Medicine
C. Thorpe Ray, M.D., Columbia, Mo.
Internal Medicine
A. Earl Walker, M.D., Baltimore, Md.
Neurological Surgery
Humbert L. Riva, M.D., East Orange, N. J.
Obstetrics
Arthur H. Keeney, M.D., Philadelphia, Pa.
Ophthalmology
Robert W. Bailey, M.D., Ann Arbor, Mich.
Orthopedic Surgery
John J. Conley, M.D., New York, N. Y.
Otorhinolaryngology
F. William Sunderman, M.D., Philadelphia, Pa.
Pathology
Alexander J. Schaffer, M.D., Baltimore, Md.
Pediatrics
Henry J. Woloshin, M.D., Philadelphia, Pa.
Radiology
Curtis P. Artz, M.D., Charleston, S. C.
Surgery
Richard T. Shackelford, M.D., Baltimore, Md.
Surgery
John T. Grayhack, M.D., Chicago, Ill.
Urology

Lectures, symposia, clinicopathologic conferences, round-table luncheons, medical motion pictures, technical exhibits and entertainment for visiting wives.

All-inclusive registration fee—$25.00

This program is acceptable for thirty and one-half (30½) accredited hours by the American Academy of General Practice.

For information concerning the Assembly meeting, write Secretary, The New Orleans Graduate Medical Assembly, Room 1528, 1430 Tulane Avenue, New Orleans, Louisiana 70112.

NEWS

Governor's Committee Names FMA Member Physician of the Year

Dr. Irwin S. Leinbach, St. Petersburg orthopedic surgeon and FMA member, was named Florida Physician of the Year during a ceremony at the joint conference of the Florida Rehabilitation Association, Governor's Committee on Employment of the Handicapped and Florida Association of Sheltered Workshops held Oct. 31, 1966, in Clearwater.

Dr. Leinbach was honored by the Governor's Committee for his worldwide contributions through charity, education and research in the fields of medical disability and rehabilitation.

Dr. Leinbach, director of the Katherine Payne Rehabilitation Center and director of the Cerebral Palsy Clinic for the National Association of Crippled Children and Adults, is senior consultant in orthopedics at Bay Pines Veterans Hospital and a member of the orthopedic surgical staffs at St. Anthony's, Mound Park, Mercy and American Legion Children's hospitals, all of St. Petersburg.



FMA President Calls Upon Physicians To Dismiss 'Narrow Parochial Ideas'

Dr. George S. Palmer, FMA President, called upon Florida's practicing physicians to dismiss "narrow parochial ideas" about medical practice and to recognize that federal health care programs are being implemented steadily by the state.

"Within nine years," he told physicians gathered for a pediatric seminar at the University of Florida College of Medicine, "these programs will be fully implemented.

"As physicians, we should do everything we can to see that they work to the best advantage of the patient, which is, after all, our reason for being."

Dr. Palmer stated that Florida, with the help of federal programs, is instituting "a wide spectrum of significant efforts which is developing into a comprehensive program for the health care of its citizens."

New Orleans Graduate Medical Assembly Convenes in March

The thirtieth annual meeting of the New Orleans Graduate Medical Assembly will be held March 6-9 at the Roosevelt Hotel, New Orleans, La.

The program is acceptable for 30½ accredited hours by the American Academy of General Practice. For further information, contact Secretary, The New Orleans Graduate Medical Assembly, 1430 Tulane Avenue, Room 1528, New Orleans, La. 70112.

AMA Activates Physician-Speakers Expanded Program

The American Medical Association has activated a new and expanded physician-speakers program encompassing diversified topics of interest to the public.

These AMA speakers are available to address business, civic, professional and fraternal organizations free of charge. Volunteer speakers are offered who can tailor their material and length of presentation to fit the needs of any audience and who are qualified experts holding national recognition in the health field.

For further information, contact the Speakers Program, American Medical Association, 535 North Dearborn Street, Chicago, Ill. 60610.

Trophoblastic Neoplasm Regional Center Established at Duke

The Southeastern Regional Center for Trophoblastic Neoplasms has been established at the Duke University Medical Center, Durham, N. C.

The center is sponsored by a health service project grant award from the Department of Health, Education, and Welfare, Division of Chronic Diseases.

The project in cancer control is established for the purpose of providing urinary gonadotropin assays and consultative assistance to physicians to aid in evaluation of patients who have, or are suspected of having, abnormalities in trophoblastic tissue growth.

Frequently Honored FMA Member Chosen To Edit Book

Dr. Charles J. Collins, Orlando obstetrician-gynecologist and frequently honored FMA member, was chosen to edit the book "Management of Amenorrhea" published by the Charles C. Thomas Company of Springfield, Ill.

Written by 19 prominent authorities in their respective fields, the book devotes considerable attention to delayed menarche and primary amenorrhea by gynecologists who have special interests in these areas.

Separate chapters on amenorrhea-producing tumors, the therapeutic use of amenorrhea and the newer measures for the induction of ovulation are also included.

FMA Member, Layman Receive Service Awards From FPHA

Dr. Albert V. Hardy, Assistant State Health Officer and FMA member, and Zollie M. Maynard, State Director for Health, Physical Education, School Safety, Summer Enrichment and Driver Education with the State Department of Education, have been presented with Meritorious Service Awards by the Florida Public Health Association.

Dr. Hardy's findings and conclusions on enteric febrile diseases are highly regarded, and the world's textbooks on this subject quote him. His experience in the organization and operation of public health laboratories caused the Agency for International Development to send Dr. Hardy around the world, stopping in several nations to aid in their development of these facilities.

Arteriosclerotic Heart Disease Still Florida's No. 1 Killer

Deaths from arteriosclerotic heart disease, Florida's number one killer, are increasing even after last year's all time high, according to the Florida State Board of Health.

Analyzing the course of the disease since 1956, the SBH stated the record number of deaths last year, 17,629, represented a rate of 303.7 per 100,000 population. Based on the first five months of this year, there are indications of a substantial increase, according to SBH tabulations.

The arteriosclerotic heart disease death rate among white males in Florida has risen approximately 23% in the past decade primarily because Florida has a high population of older people, stated a recent SBH bulletin.

New Medical Educational Film Features Quantitative Depression Scale

A film depicting the development, validation and use of a scale for he quantitative measurement of depression is now available for medical educational purposes.

The scale was designed by Dr. William Zung, a psychiatrist of Durham, N. C. Although initially devised for use in psychiatric research, the scale readily lends itself to the general practice of medicine where most depressions are first encountered.

The self-rating scales, available in quantity for use in office practice, come complete with full instructions.

Both the film and pads of the scale are available free upon request from Lakeside Laboratories, Inc., Milwaukee, Wisconsin 53201.

THE DUVALL HOME for RETARDED CHILDREN

A home offering the finest custodial care with a happy home-like environment. We specialize in the care of infants, bed-ridden children and Mongoloids.

For further information write to

MRS. A. H. DUVALL GLENWOOD, FLORIDA



following infection

B and C vitamins are therapy: STRESSCAPS B and C vitamins in therapeutic amounts... help the body mobilize defenses during convalescence... aid response to primary therapy. The patient with a severe infection, and many others undergoing physiologic stress, may benefit from STRESSCAPS capsules.



Stresscaps®

Stress Formula Vitamins Lederle

FOR PROFESSIONAL RECOMMENDATION ONLY

Each capsule contains:

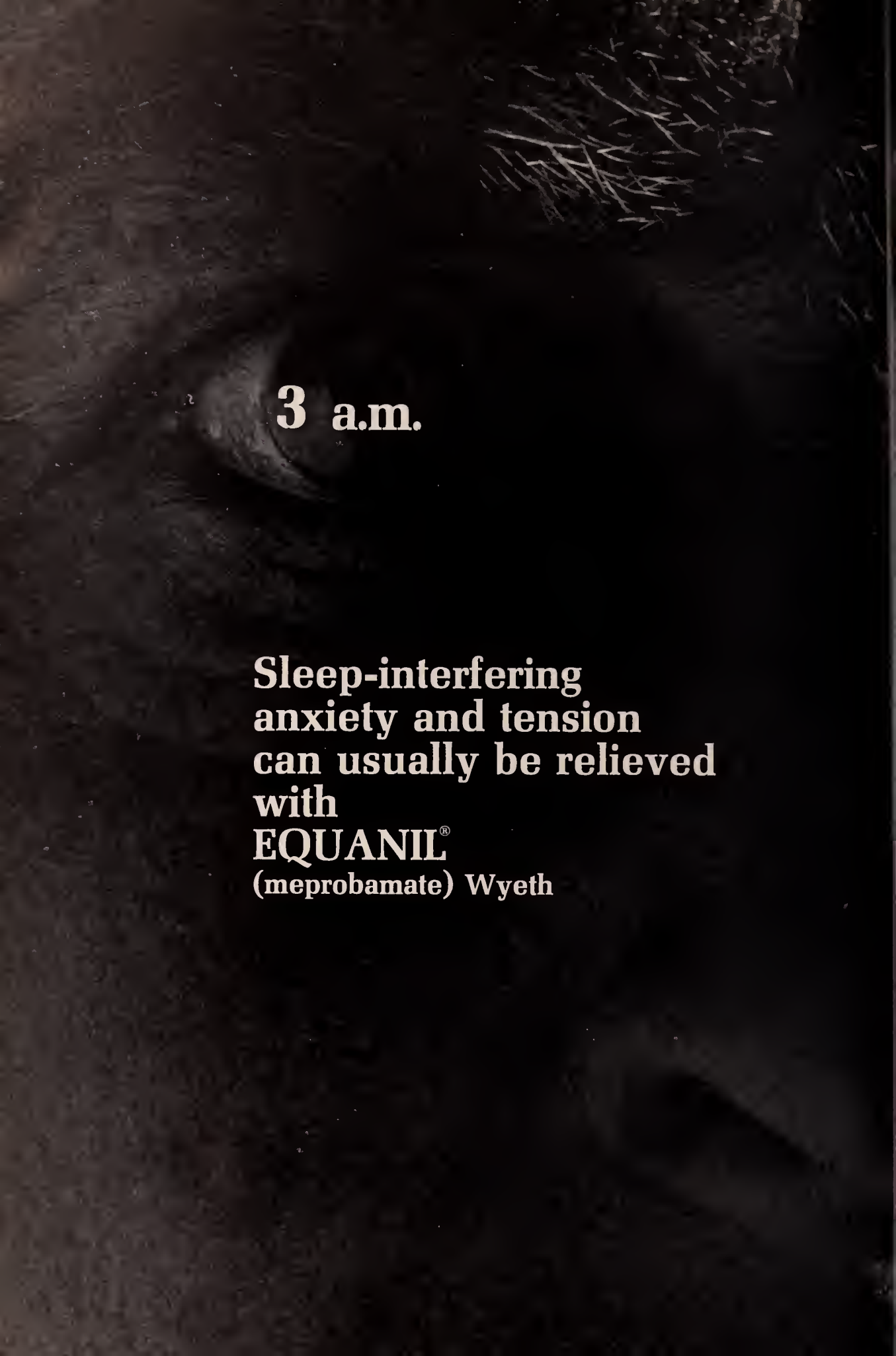
Vitamin B_1 (as Thiamine Mononitrate)	10 mg
Vitamin B_2 (Riboflavin)	10 mg
Vitamin B_6 (Pyridoxine HCl)	2 mg
Vitamin B_{12} Crystalline	4 mcgm
Vitamin C (Ascorbic Acid)	300 mg
Niacinamide	100 mg
Calcium Pantothenate	20 mg

Recommended intake: Adults, 1 capsule daily, for the treatment of vitamin deficiencies. Supplied in decorative "reminder" jars of 30 and 100; bottles of 500.

LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York

Lederle

626-6—3612


3 a.m.
Sleep-interfering
anxiety and tension
can usually be relieved
with
EQUANIL®
(meprobamate) Wyeth



Cautions: Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use may result in dependence or habituation in susceptible persons—as ex-addicts, alcoholics, severe psychoneurotics. After prolonged high dosage, drug should be withdrawn gradually to avoid possibly severe withdrawal reactions including epileptiform seizures. Side effects include drowsiness and, rarely, allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute non-thrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever have been reported. Meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. Warn patients of possible reduced alcohol tolerance. Should drowsiness, ataxia, or visual disturbances occur, dose should be reduced. If symptoms persist, patients should not operate vehicles or dangerous machinery. A few cases of leukopenia, usually transient, have been reported following prolonged dosage. Other blood dyscrasias—aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis and hemolytic anemia—have occurred rarely, almost always in the presence of known toxic agents. One fatal case of bullous dermatitis following intermittent use of meprobamate with prednisolone has been reported. Prescribe very cautiously for patients with suicidal tendencies. Suicidal attempts should be treated with immediate gastric lavage and appropriate supportive therapy.

Contraindications: History of sensitivity to meprobamate.

Composition: Tablets, 200 mg. and 400 mg. meprobamate. Coated Tablets, WYSEALS® EQUANIL (meprobamate) 400 mg. Continuous-Release Capsules, EQUANIL L-A (meprobamate) 400 mg.

Wyeth Laboratories
Philadelphia, Pa.

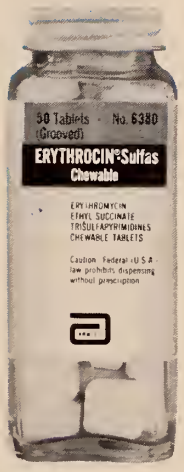
Wyeth®
SERVICE TO MEDICINE



Perhaps there have been times when you wanted to prescribe erythromycin and triple sulfas for little patients. Now you can—with a choice of two new fine-tasting pediatric forms.

New–Two Pediatric Forms of Erythromycin and Triple Sulfas





ERYTHROCIN®-SULFAS Chewable (Erythromycin ethyl succinate-trisulfapyrimidines chewable tablet)

In clinical trials[1,2], this orange-flavored tablet was given to 55 patients, aged four months to 18 years.

Diagnoses (multiple in some cases) represented a cross section of bacterial infections commonly seen in pediatric office practice.

Therapy was given from three to 12 days, with an average of six days.

Of the 55 patients, 30 were reported cured within 72 hours, while 22 showed partial recovery within the same time, and subsequent clinical cure.

A clinical cure rate of 94.5%

ERYTHROCIN®-SULFAS Granules (Erythromycin ethyl succinate-trisulfapyrimidines granules for oral suspension)

87 patients were treated[1,2]—all children, ages four months to 15 years.

The diagnoses were multiple in some cases and were chiefly bacterial infections of the respiratory tract.

Dosage was maintained from three to 10 days; average treatment was five days. All of the ill children accepted the orange-flavored suspension favorably.

53 were clinically cured within 72 hours, while 32 showed partial relief within the same time, and subsequent clinical cure.

701358

A clinical cure rate of 97.7%

1. Case Reports on File, Dept. Clin. Development, Abbott Laboratories.
2. Polley, R.F.L., Use of Erythromycin-Sulfas in Office Practice, Western Med., 7:177, July, 1966.

ABBOTT

Brief Summary on next page

ERYTHROCIN®-SULFAS
Brief Summary

Contraindications: Known sensitivity to erythromycin or sulfonamides. Because of the possibility of kernicterus with sulfonamides, do not use in pregnancy at term, premature or newborn infants.

Warnings: As with other forms of sulfonamide therapy, carefully evaluate patients with liver or kidney damage, urinary obstruction, or blood dyscrasia. Deaths have been reported from hypersensitivity reactions and blood dyscrasias following use of sulfonamides. Perform blood counts and liver and kidney function tests if used repeatedly at close intervals or for long periods.

Precautions, Side Effects: Occasionally mild abdominal discomfort, nausea or vomiting may occur with erythromycin, generally controlled by reduction of dosage. Mild allergic reactions (such as urticaria and other skin rashes) may occur. Serious allergic reactions have been extremely infrequent. Use sulfonamides with caution in patients with a history of allergy. Assure adequate fluid intake to prevent crystalluria and institute alkali therapy if indicated. If overgrowth of nonsusceptible organisms occurs, withdraw the drug and institute appropriate treatment. If a patient should show signs of hypersensitivity, appropriate countermeasures (e.g. epinephrine, steriods, etc.) should be administered and the drug withdrawn.

Adverse Reactions: Sulfonamide therapy may be associated with headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, skin rash, injection of the conjunctiva and sclera, petechiae, purpura, hematuria and crystalluria.

Side effects due to erythromycin are infrequent, but occasional abdominal discomfort, nausea, or vomiting, urticaria and other skin rashes may occur.

Supplied: The Granules for Oral Suspension come in bottles of 60 ml. and 150 ml. The Chewable tablets are in bottles of 50. Each 5-ml. teaspoonful of reconstituted Granules or each Chewable tablet provides erythromycin ethyl succinate equivalent to 125 mg. of erythromycin activity and 167 mg. of each of sulfadiazine, sulfamerazine and sulfamethazine.

701358

ABBOTT

Association News

Ninth Annual Conference County Medical Society Presidents and Secretaries

The Association's Ninth Annual Conference of County Medical Society Presidents and Secretaries will be held January 28-29 at the Robert Meyer Motor Inn, Orlando. The purpose of the session, as in previous years, will be to help orient incoming county medical society officers regarding national and state programs, policies and activities of medical interest.

All local society presidents, secretaries, executive personnel and other officers each society chooses to include are invited to attend and participate in the conference, at which better than 90% of the Association's membership usually is represented by those attending. The following is a schedule of activities for the conference:

Saturday Morning
January 28, 1967

8:00- 9:00 FLAMPAC Workshop

9:00-12:00 State Medical Legislation Workshop (For County Medical Society Officers and Legislative Chairmen)

10:00-12:00 Medicine and Religion Workshop (For County Medical Society Officers and Medicine and Religion Chairmen)

Saturday Afternoon
January 28, 1967

Presiding, George S. Palmer, M.D., President

1:00 Registration

1:15 Introductory Remarks—Dr. Palmer

1:30 The National Medical Scene—Ernest B. Howard M.D., Assistant Executive Vice President, American Medical Association

2:00 Scientific Activities—Richard C. Dever, M.D., Chairman, FMA Scientific Council

2:30 Heart Disease, Cancer and Stroke Regional Programs, H. Phillip Hampton, M.D., Chairman, Florida Advisory Council on Heart Disease, Cancer and Stroke, Inc.

3:00 Coffee and Coke Break

3:15 FMA State Legislative Program for 1967 Session of the Florida Legislature—Edward G. Haskell Jr., M.D., Chairman, FMA Committee on State Legislation

4:00 Medical Economics Panel—Jack A. MaCris, M.D., Moderator, Chairman, Council on Medical Economics

Relative Value Studies—Robert E. Zellner, M.D., Past President

Workmen's Compensation, Vocational Rehabilitation, and Crippled Children's Commission—Fred A. Butler, M.D., Chairman, FMA Committee on Fee Schedules

Public Law 89-97, Title XVIII-A—Mr. John F. Monahan, Executive Director, Florida Hospital Association

Public Law 89-97, Title XVIII-B—Russell B. Carson, M.D., Past Chairman, National Association of Blue Shield Plans.

6:30 Social Hour

7:30 Buffet Dinner

Sunday Morning
January 29, 1967

Presiding, W. Dean Steward, M.D., President-Elect

9:00 Medicine and Religion—Rev. Paul B. McCleave, LL.D., Director, Department of Medicine and Religion, American Medical Association

9:30 County Medical Society Programs and Problems

Large—Ray E. Murphy Jr., M.D., President Broward County Medical Association

Medium—Eugene J. Boyd, M.D., President, Sarasota County Medical Society

Small—John T. Wilson, M.D., President, Columbia County Medical Society

10:30 Coffee and Coke Break

10:45 Specialty Society Programs and Problems

Florida Society of Internal Medicine, Addison L. Messer, M.D., President

Florida Society of Pathologists, Jerome Benson, M.D., President

Florida Academy of General Practice, Louis C. Murray, M.D., President

12:00 **Noon** Adjournment

YOUR Patronage Has Made Our Growth Possible

Medical Supply Company of Jacksonville

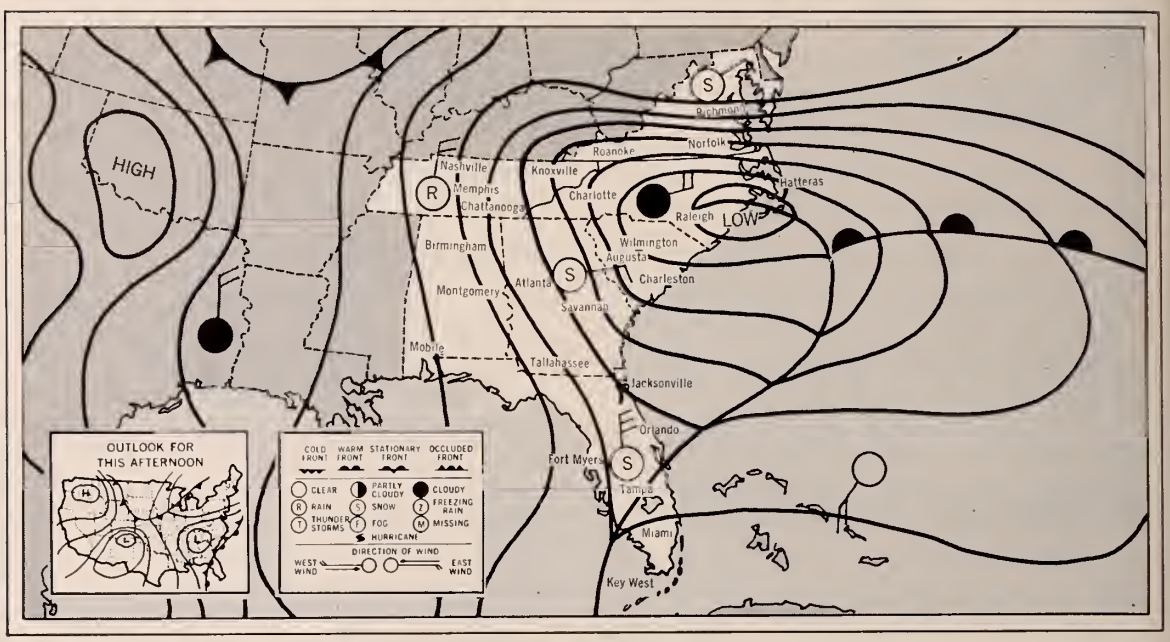


Home Office
JACKSONVILLE
4539 Beach Blvd.
Telephone FL 9-2191

ORLANDO
1511 Sligh Blvd.
Telephone GA 5-3537

REGIONAL WEATHER FORECAST

Record Low Temperatures and Heavy Rain Followed by Cough, Stuffed and Runny Noses and Aches and Pains.



Tussagesic breaks up coughs, quickly clears stuffed and runny noses and relieves aches and pains. Provide coverage of the tough cold for up to 24 hours with just a single timed-release tablet dosed morning, midafternoon and at bedtime.

each

Tussagesic®

timed-release tablet contains:

Triaminic® (phenylpropanolamine hydrochloride 25 mg., pheniramine maleate 12.5 mg., pyrilamine maleate 12.5 mg.)	50 mg.
Dextromethorphan hydrobromide	30 mg.
Terpin hydrate	180 mg.
Acetaminophen	325 mg.

Dosage: Adults—1 tablet, swallowed whole to preserve timed-release feature, in morning, midafternoon and at bedtime. *Side effects:* Occasional drowsiness, blurred vision, cardiac palpitations, flushing, dizziness, nervousness or gastrointestinal upsets. *Precautions:* The patient should be advised not to drive a car or operate dangerous machinery if drowsiness occurs. Use with caution in patients with hypertension, heart disease, diabetes or thyrotoxicosis.

DORSEY LABORATORIES • *a division of The Wander Company* • **LINCOLN, NEBRASKA**

The Medical Detective



The Thin Thread of Life

One of the things evident to us as doctors is the thin thread of life that exists in some persons. This may be exemplified by various anomalies or defects to which the person may adjust from birth or by various complications of natural disease. In the former group we can include berry aneurysms, egg-shell crania and various enzyme or metabolic deficiencies from which the person may never have any unusual effects. In the latter group, complications of natural disease, autopsies frequently show such incidental findings as arteriosclerotic aneurysms, especially in the aorta, severe coronary artery disease and advanced kidney disease. These findings have been associated in many cases with no treatment or complaints. Occasionally an unsuspected natural disease process may be exposed to minimal trauma and thus the thin thread by which the person has survived is suddenly snapped. Such an occurrence is described in the following case.

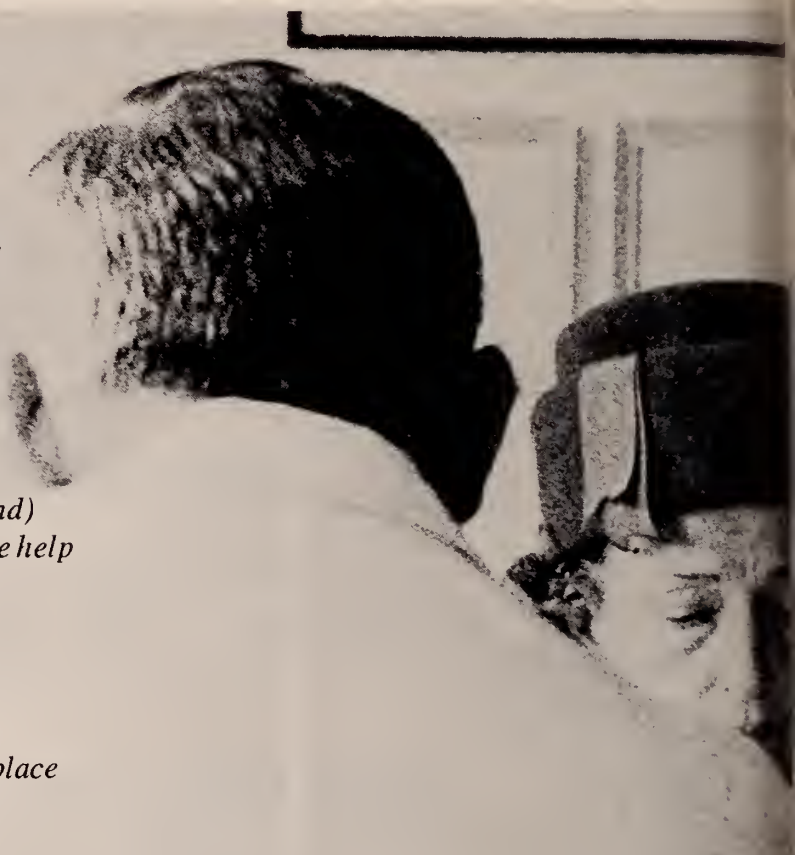
A 55 year old obese man was brought into the hospital emergency room one afternoon gasping and in deep shock. Despite heroic measures he died. The patient had been involved in a low speed automobile accident. He was the driver of a small foreign car which bumped the back of the car in front of him. Witnesses at the scene said he was apparently distracted by heavy equipment working beside the detour on the road he was traveling. He wore no seat belt and apparently the lower portion of his abdomen impacted with the steering wheel.

An autopsy, ordered by the medical examiner, revealed the cause of death to be directly related to a massive intra-abdominal hemorrhage secondary to the rupture anteriorly of a pre-existing saccular aneurysm of the abdominal aorta. The location of the aneurysm between the level of the renal arteries and the bifurcation of the aorta is a common one, and was related to severe aortic arteriosclerosis seen throughout.

Of the many interesting facets in this case, the most important was the value of seat belts, properly fastened, as a means of preventing the injury. This precaution would certainly have resulted in his being slowed with a similar rate of deceleration as the car, and he would not have struck the steering wheel as he did.

William G. Eckert, M.D.

The Mediatric Age:
There is a growing senescent body of people on their way to malignant inactivity, who sorely need your interest and direction to help them back to a more active and useful life. There are medicines too, designed to help. One such has proved useful in clinical practice.



"A steroid-nutritional compound (Mediatric) was used in 100 patients to relieve some of the symptoms caused by degenerative changes of aging... This therapy resulted in improvement of 75 per cent of the patients..."

McNeill, A. J.: Clin. Med. *8*:518 (Mar.) 1961.

"Mediatric (steroid-nutritional compound) capsules, one a day, seem to give definite help to debilitated patients."

Arnold, E. T., Jr.: Geriatrics *12*:612 (Oct.) 1957.

"Nutritional and hormone bolstering of function in the aged may have a useful place in geriatrics."

Morgan, A. F.: Gerontologist *2*:77 (June) 1962.

"In diets which for any reason are restricted in calories, enough of these substances (B vitamins) may not be supplied... The use of B and C vitamin supplements may then be justified and indeed may be necessary."

Morgan, A. F.: Gerontologist *2*:77 (June) 1962.

"Intensive nutritional therapy is necessary, especially in elderly people, to correct dietary deficiencies created by large losses of protein, vitamins and other nutrients."

Riccitelli, M. L.: J. Am. Geriatrics Soc. *12*:489 (May) 1964.

Mediatric®

Designed for the "metabolically spent"

Nutritional reinforcement for those who can't – or won't – eat properly...balanced amounts of estrogen and androgen to counteract declining gonadal hormone secretion and its sequelae of premature degenerative changes...mild antidepressant for a gentle "mood" uplift...

The estrogen component in MEDIATRIC is PREMARIN® (conjugated estrogens—equine), the natural estrogen most widely prescribed for its superior physiologic and metabolic benefits.

MEDIATRIC also provides *nutritional reinforcement—blood-building factors and vitamin supplementation.* It contributes a *gentle "mood" uplift* through methamphetamine HCl.

Three different dosage forms—Liquid, Tablets, and Capsules—offer convenience and variety.

MEDIATRIC Liquid

Each 15 cc. (3 teaspoonfuls) contains:

Conjugated estrogens—equine (Premarin®)	0.25 mg.
Methyltestosterone	2.5 mg.
Niamine HCl	5.0 mg.
Cyanocobalamin	1.5 mcg.
Methamphetamine HCl	1.0 mg.

Contains 15% alcohol

MEDIATRIC Tablets and Capsules

Each MEDIATRIC Tablet or Capsule contains:

Conjugated estrogens—equine (Premarin®)	0.25 mg.
Methyltestosterone	2.5 mg.
Ascorbic acid	100.0 mg.
Cyanocobalamin	2.5 mcg.
Intrinsic factor concentrate	8.0 mg.
Niamine mononitrate	10.0 mg.
Riboflavin	5.0 mg.
Niacinamide	50.0 mg.
Pyridoxine HCl	3.0 mg.
Calc. pantothenate	20.0 mg.
Ferrous sulfate exsic.	30.0 mg.
Methamphetamine HCl	1.0 mg.

Orally active, water-soluble conjugated estrogens derived from pregnant mares' urine and standardized in terms of the weight of active, water-soluble estrogen content.

MEDIATRIC helps keep the older patient alert and active; helps relieve general malaise, easy fatigability, vague pains in the bones and joints, loss of appetite, and lack of interest usually associated with declining gonadal hormone secretion.

CONTRAINDICATION: Carcinoma of the prostate, due to methyltestosterone component.

WARNING: Some patients with pernicious anemia may not respond to treatment with the Tablets or Capsules, nor is cessation of response predictable. Periodic examinations and laboratory studies of pernicious anemia patients are essential and recommended.

SIDE EFFECTS: In addition to withdrawal bleeding, breast tenderness or hirsutism may occur.

SUGGESTED DOSAGES: *Male and female:* 3 teaspoonfuls of Liquid, 1 Tablet, or 1 Capsule, daily or as required.

In the female: To avoid continuous stimulation of breast and uterus, cyclic therapy is recommended (3 week regimen with 1 week rest period—Withdrawal bleeding may occur during this 1 week rest period).

In the male: A careful check should be made on the status of the prostate gland when therapy is given for protracted intervals.

SUPPLIED: No. 910 – MEDIATRIC Liquid, in bottles of 16 fluidounces and 1 gallon. No. 752 – MEDIATRIC Tablets, in bottles of 100 and 1,000. No. 252 – MEDIATRIC Capsules, in bottles of 30, 100, and 1,000.



Mediatric®

steroid-nutritional compound

AYERST LABORATORIES, NEW YORK, N.Y. 10017 • Montreal, Canada

6636



Whenever the diet is faulty, the appetite poor, or the loss of food is excessive

through vomiting or diarrhea—

Valentine's
MEAT EXTRACT

stimulates the appetite,

increases the flow of digestive juices,

provides: supplementary amounts of vitamins, minerals and soluble proteins,

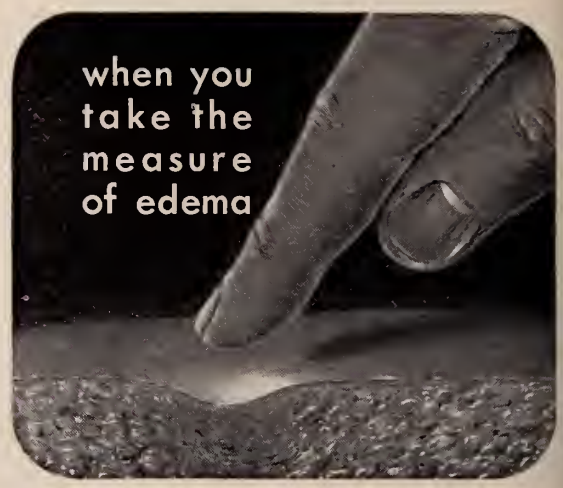
extra-dietary vitamin B_{12},

protective quantities of potassium, in a palatable and readily assimilated form.

Supplied in bottles of 2 or 6 fluidounces.

DOSAGE *is 1 teaspoonful two or three times daily; two or three times this amount for potassium therapy. Dilute with two or more equal volumes of water.*

VALENTINE Company, Inc.
RICHMOND 21 VIRGINIA



. . . introduce your patient to

aquaTAG®
(BENZTHIAZIDE)

AQUATAG (Benzthiazide) is a potent, orally active, nonmercurial, diuretic agent. It is effective orally in producing diuresis in edema states, where it is therapeutically comparable to mercurials given parenterally. AQUATAG (Benzthiazide) is mildly antihypertensive in its own right and enhances the action of other antihypertensive drugs when used in combination.

DIURETIC ACTION: Clinically, the oral administration of AQUATAG (benzthiazide) results in diuretic activity within two hours with maximal natriuretic, chloruretic, and diuretic effects occurring during the fourth, fifth and sixth hours. Maintenance of response continues for approximately 12 to 18 hours. Acidosis is an unlikely complication since therapeutic doses of AQUATAG (benzthiazide) do not appreciably increase bicarbonate excretion. Edematous patients receiving 50 mg. of AQUATAG (benzthiazide) daily for five days developed a maximal increase in the rate of sodium excretion on the first day, and maintained this high rate until depletion of excessive body stores of sodium.

In congestive heart-failure patients, AQUATAG (benzthiazide) produced the same weight loss, during a 48-hour treatment period as did a maximally effective dose of hydrochlorothiazide.

DOSAGE: Diuresis, initially 50 to 200 mg.; maintenance 25 to 150 mg., daily. Hypertension 50 to 100 mg. initially, adjusted to 50 mg. t.i.d. or downward to minimal effective dosage level.

WARNINGS: Use with caution in the presence of renal disease as azotemia may be precipitated or increased. In patients with advanced hepatic disease, electrolyte imbalance may result in hepatic coma. Dosage of coadministered antihypertensive agents should be reduced by at least 50%. In cases of suspected electrolyte imbalance, serum electrolyte determinations should be performed and imbalance, if any, corrected. Stenosis or ulcer of small intestine have been reported with coated potassium formulas, and surgery has been required and deaths have occurred. Based on surveys of both United States and foreign physicians, incidence of these lesions is low and a causal relationship in man has not been definitely established. Until further experience has been obtained, the use of the drug in pregnant patients should be weighed against possible hazards to the fetus.

CONTRAINDICATIONS: AQUATAG (benzthiazide) is contraindicated in progressive renal disease or dysfunction including increasing oliguria and azotemia. Continued administration of this drug is contraindicated in patients who show no response to its diuretic or antihypertensive properties. Severe hepatic disease is a relative contraindication. (See "Warnings" above.)

PRECAUTIONS AND SIDE EFFECTS: Electrolyte imbalance with hypokalemia (digitalis toxicity may be precipitated), hypochloremic alkalosis and hyponatremia may occur.

Patients with cirrhosis should be observed for impending hepatic coma and hypokalemia. Other reactions may include blood dyscrasias, hyperuricemia and gout, nausea, jaundice, anorexia, vomiting, diarrhea, dizziness, paresthesia, photosensitivity and headache. Hepatic fetor, tremor, confusion and drowsiness are signs of impending pre coma and coma in patients with cirrhosis. Insulin requirements may be altered in diabetes. AQUATAG (benzthiazide) should be used with caution post-operatively as hypokalemia is not uncommon. Potassium supplementation may be advisable pre- and post-operatively. There have been occasional reports of thrombocytopenia, leukopenia, agranulocytosis, aplastic anemia and precipitation of acute pancreatitis or jaundice.

Before prescribing or administering, read the package insert or file card available on request.

Available as 25 or 50 mg. scored tablets.

Request clinical samples and literature on your letterhead.

S.J. TUTAG & COMPANY
Detroit, Michigan 48234



"Yes, Doctor, the pain is gone."

■ Despite introduction of synthetic substitutes, efficacy of 'Empirin' Compound with Codeine remains unchallenged.

'Empirin'® Compound with Codeine Phosphate gr. ½ No. 3

Each tablet contains: Codeine Phosphate gr. ½ (Warning—May be habit forming), Phenacetin gr. 2½, Aspirin gr. 3½, Caffeine gr. ½.

Keeps the Promise of Pain Relief

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N.Y.


It's easy
for children to ge
otitis media...

and Gantanol Suspension is a good way to help them get well

proven effectiveness against major U.R.I. pathogens including beta-hemolytic strep

With Gantanol (sulfamethoxazole), bacteriologic conversion rates for beta-hemolytic streptococci are comparable to those generally seen with penicillin, and apparently superior to those cited in the literature for erythromycin and the broad-spectrum antibiotics.[1,2] With conversion rates ranging from a high of 96% in 229 patients[2] and 98% in 96 cases[3] to 65% in 105 cases,[5,6] Gantanol (sulfamethoxazole) Suspension is an effective alternative therapy in patients sensitive to penicillin, the drug of choice in known beta-hemolytic streptococcal infections.

In addition to this effectiveness against beta-hemolytic streptococci,[1-9] bacteriologic conversion rates have averaged 69% for *D. pneumoniae* (103 of 150 patients),[3,6,7] 78% for *H. influenzae* (42 of 54 patients),[3,4,7] and 67% for *Staph. aureus* (76 of 113 patients).[3,4,6,7] It is this wide spectrum of activity which makes Gantanol (sulfamethoxazole) Suspension a good choice in acute pharyngitis, tonsillitis and otitis media.



therapy generally uncomplicated by side effects

Over 8 out of 10 U.R.I. patients—87% of 2231 patients—showed an excellent to satisfactory clinical response to Gantanol (sulfamethoxazole).[1-13] Such favorable results are even more meaningful in view of the fact that only 1.1% of the more than 2000 cases cited discontinued therapy because of side effects. Of the total side effects reported (4.6%), most were mild and included rash, urticaria, itching, dizziness, headache, diarrhea, nausea and vomiting, shivering sensation, skin discoloration and crystalluria.[1-13]

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Acute and chronic respiratory and urinary tract bacterial infections due to susceptible microorganisms. At present penicillin is considered the drug of choice in acute group A beta-hemolytic streptococcal infections; however, Gantanol (sulfamethoxazole) has shown an effectiveness approaching that of penicillin in a large number of patients. If employed in such infections, *it is important that therapy be continued in the usual recommended dosage for a period of at least 10 days.*

Contraindicated in sulfonamide-sensitive patients, pregnant females at term, premature infants or infants during first 3 months of life.

Warnings: Use only after critical appraisal in patients with liver damage, renal damage, urinary obstruction or blood dyscrasias. If toxic or hypersensitivity reactions or blood dyscrasias occur, discontinue therapy. In intermittent or prolonged therapy, blood counts and liver and kidney function tests should be performed. Data insufficient on prolonged or recurrent therapy in chronic renal diseases of children.

Precautions: Observe usual sulfonamide therapy precautions, including maintenance of an adequate fluid intake. Use with caution in patients with histories of allergies and/or asthma. Patients with impaired renal function should be followed closely since renal impairment may cause excessive drug accumulation. Occasional failures may occur due to resistant microorganisms. Not effective in virus or rickettsial infections.

Adverse Reactions: Following may occur: headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, Stevens-Johnson syndrome, skin rash, injection of the conjunctiva and sclera, petechiae, purpura, hematuria and crystalluria.

Dosage: Children—1 teasp./20 lbs initially, followed by ½ teasp./20 lbs b.i.d. *Adults*—4 teasp. initially, followed by 2 teasp. b.i.d. or t.i.d., depending upon severity of infection.

How Supplied: Suspension 10%, 0.5 Gm sulfamethoxazole/5 cc teasp., cherry-flavored, bottles of 16 oz.

References: 1. Braden, B.; Colmore, J. P., and Cummings, M. M.: Antimicrobial Agents Annual—1960, p. 54. 2. Alban, J.: *Am. J. Dis. Child., 109*:304, 1965. 3. Elia, J. C.: *Eye Ear Nose & Throat Month., 41*:722, 1962. 4. Carter, C. H.: *Clin. Med., 71*:1571, 1964. 5. Jackson, H.; Cooper, J.; Mellinger, W. J., and Olsen, A. R.: *Southwestern Med., 44*:246, 1963. 6. Reichelderfer, T. E.: *Clin. Med., 71*:1045, 1964. 7. Peters, J. H.: Scientific Exhibit presented at the Spring Meeting of the American Academy of Pediatrics, April 26-29, 1965. 8. Peters, J. H.: Antimicrobial Agents and Chemotherapy—1961, p. 406. 9. Braden, B., and Colmore, J. P.: *J. Oklahoma M. A., 57*:7, 1964. 10. Chastain, P. J.: *J. Florida M. A., 48*:816, 1962. 11. Grater, W. C.: *Antibiotics & Chemother., 12*:450, 1962. 12. Exline, A. L.: *Colorado GP, 5*:(5), 11, 1963. 13. Patton, J. M.: *West. Med., 5*:46, 1964.

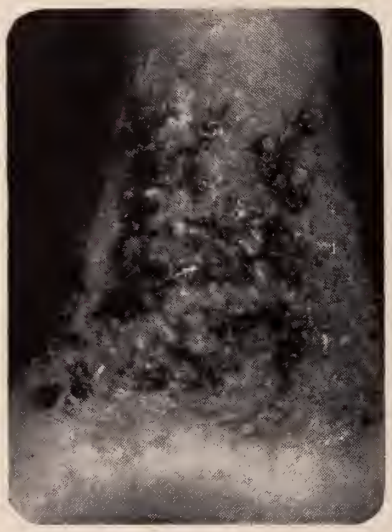
for optimal therapeutic response, remember the initial loading dose each time you prescribe Gantanol (sulfamethoxazole) Suspension

Gantanol®
(sulfamethoxazole)
Suspension

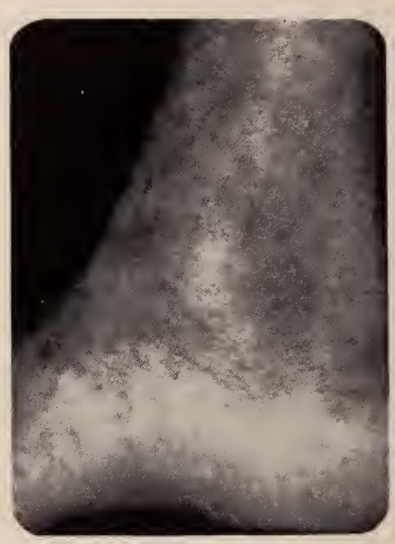
Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

ROCHE

Eczema of many years... controlled in two weeks



Before treatment



After treatment — with ARISTOCORT Topical Ointment 0.1% for two weeks

ARISTOCORT® Triamcinolone Acetonide Topicals have proved exceptionally effective in the control of various forms of eczema: allergic, atopic, nummular, psoriatic, and mycotic.

In most cases responsive to topical ARISTOCORT, the 0.1% concentration is sufficiently potent. The 0.5% concentration provides enhanced topical activity for patients requiring additional potency for proper relief.

Administration and Dosage: Apply sparingly to the affected area 3 or 4 times daily. Some cases of psoriasis may be more effectively treated if the 0.1% Cream or Ointment is applied under an occlusive dressing.

Contraindications: Tuberculosis of the skin, herpes simplex, chicken pox and vaccinia.

Precautions and Side Effects: Do not use in the eyes or in the ear (if drum is perforated). A few individuals react unfavorably under certain conditions. If side effects are encountered, the drug should be discontinued and appropriate measures taken. Use on infected areas should be attended with caution and observation, bearing in mind the potential spreading of infection and the advisability of discontinuing therapy and/or initiating antibacterial measures. Generalized dermatological conditions may require systemic corticosteroid therapy. Steroid therapy, although responsible for remissions of dermatoses, especially of allergic origin cannot be expected to prevent recurrence. The use over extensive body areas, with or without occlusive nonpermeable dressings, may result in systemic absorption. Appropriate precautions should be taken. When occlusive nonpermeable dressings are used, miliaria, folliculitis and pyodermas will sometimes develop. Localized atrophy and striae have been reported with the use of steroids by the occlusive technique. When occlusive nonpermeable dressings are used, the physician should be aware of the hazards of suffocation and flammability. The safety of use on pregnant patients has not been firmly established. Thus, do not use in large amounts or for long periods of time on pregnant patients.

Available in 5 Gm. and 15 Gm. tubes and ½ lb. jars.

PHOTOGRAPHS COURTESY OF M. M. NIERMAN, M.D.

Aristocort® Topical Ointment 0.1% and Cream 0.1%, 0.5%
Triamcinolone Acetonide
Also available in foam form.

Lederle LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York

436-6

New
ow-cost tetracycline/antifungal therapy

for broad-spectrum activity
plus specific antifungal prophylaxis
at significant patient savings

Vhenever tetracycline is indicated in these candidates for Candida:

c betic patients



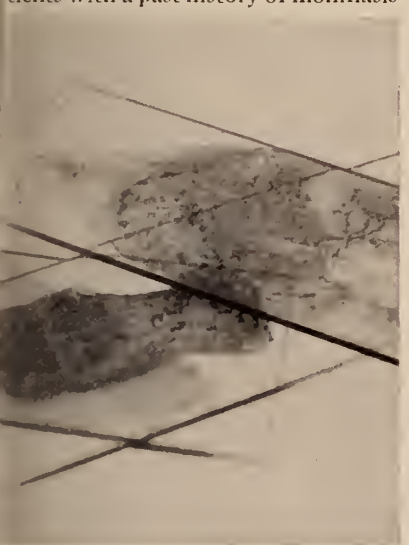
2. nonpregnant women with a history of recent or recurrent monilial vaginitis



3. elderly or debilitated patients



tients with a past history of moniliasis



5. patients on long-term tetracycline or corticosteroid therapy



BRISTOL THERAPEUTIC SUMMARY: For complete in formation consult Official Package Circular. *Indications* Infections of respiratory, gastrointestinal and genitourinar tracts and skin and soft tissues due to tetracycline-sens tive organisms, in patients with increased susceptibilit to monilial infections. *Contraindications:* The drug is co traindicated in patients hypersensitive to its component *Warnings:* Photodynamic reactions have been produced b tetracyclines. Natural and artificial sunlight should b avoided during therapy. Stop treatment if skin discomfo occurs. With renal impairment, systemic accumulation a hepatotoxicity may occur. In this situation, lower dos should be used. Tooth staining and enamel hypoplasia ma be induced during tooth development (last trimester pregnancy, neonatal period and childhood). *Precaution* Bacterial superinfection may occur. Infants may develo increased intracranial pressure with bulging fontanels. gonorrheal therapy, serologic tests for syphilis should b conducted initially and monthly for 3 months. *Adver Reactions:* Glossitis, stomatitis, nausea, diarrhea, flat lence, proctitis, vaginitis, dermatitis, and allergic reactio may occur. *Usual Adult Dosage:* 1 capsule *q.i.d.* Contin therapy for 10 days in beta-hemolytic streptococcal infe tions. Administer one hour before or 2 hours after meal *Supply:* Capsules, bottles of 16. Each capsule contains te racycline phosphate complex equivalent to 250 mg. tetr cycline HCl activity and 250,000 units of nystatin.

BRISTOL LABORATORIES
Division of Bristol-Myers Company
Syracuse, New York

Tetrex-F®

ch capsule contains tetracycline phosphate complex equivalent to tetracycline hydrochloride 250 mg. and nystatin 250,000 units.

Tetrex-F is priced lower
than most
tetracycline-antifungal products.


Let's get
down to earth
about
diuretics

With Hygroton, you'll discover that you can almost always use fewer tablets than is possible with other diuretics.

You may be told that a new short-acting diuretic was found more effective than Hygroton in congestive heart failure—but this was when twice the manufacturer's maximum recommended dose was given.* At the maximum recommended dose for both diuretics, two tablets of Hygroton were far and away more effective than five tablets of the other diuretic in producing natruresis and weight loss. And at these dosages, Hygroton costs only ⅓ as much as the other diuretic.

Since the discovery of chlorothiazide, the trend has been away from short-acting, multiple-dose, high-cost diuretics. With Hygroton you can usually do the job with just one tablet a day, or every other day.

More than any of the newer diuretics, Hygroton brings dosage and cost of medication down to earth.

*Brest, A. N., et al.:J. New Drugs 5:329, 1965.

Hygroton®
chlorthalidone

Indications: Hypertension and many types of edema involving retention of salt and water. **Contraindications:** Hypersensitivity and most cases of severe renal or hepatic disease. **Warning:** With administration of enteric-coated potassium supplements, the possibility of small bowel lesions should be kept in mind. **Precautions:** Reduce dosage of concomitant antihypertensive agents by at least one-half. Discontinue if the BUN rises or liver dysfunction is aggravated. Electrolyte imbalance and potassium depletion may occur; take special care in cirrhosis or severe ischemic heart disease, and in patients receiving corticosteroids, ACTH, or digitalis. Salt restriction is not recommended. **Side Effects:** Dizziness, weakness, nausea, vomiting, hyperglycemia, hyperuricemia, headache, muscle cramps, postural hypotension, constipation, leukopenia, thrombocytopenia, agranulocytosis, impotence, dysuria, transient myopia, skin reactions, including urticaria and purpura, epigastric pain, or G.I. symptoms after prolonged administration. **Average Dosage:** One tablet (100 mg.) with breakfast daily or every other day. **Availability:** Tablets of 100 mg. in bottles of 100 and 1000. For full details, see the complete prescribing information. 6524-V(B)

HY-4735

Geigy Pharmaceuticals
Division of Geigy Chemical Corporation, Ardsley, New York

Geigy



Now, now, Mrs. Forsythe, we've never lost a cold patient yet.

When she's experiencing acute discomfort from cold symptoms, it's small wonder the patient becomes distressed about her condition.

She will breathe easier when you prescribe Novahistine LP.

Novahistine LP is a long-acting decongestant that helps restore normal mucus secretion and ciliary activity—physiologic mechanisms which prevent infection of the respiratory tract. A dose of two tablets taken in the morning and repeated in the evening will usually keep air passages clear for 24 hours.

Use cautiously in individuals with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Caution patients who operate machinery or motor vehicles that drowsiness may result.

Each Novahistine LP tablet contains: phenylephrine hydrochloride, 25 mg., and chlorpheniramine maleate, 4 mg.

DOW PITMAN-MOORE Division of The Dow Chemical Company, Indianapolis

NOVAHISTINE® LP

For relief of nasal congestion.



Saxon

Anderson Surgical Supply Co.

Established 1916

Distributors of Known Brands of Proven Quality

TELEPHONE 229-8504
Morgan at Platt, P. O. Box 1228
TAMPA, FLORIDA 33601

TELEPHONE 896-3107
556 9th St., South
ST. PETERSBURG, FLORIDA

TELEPHONE 376-8253
236 S.W. 4th Ave.
GAINESVILLE, FLORIDA

TELEPHONE CHerry 1-9589
1818 N. Orange Ave.
ORLANDO, FLORIDA



Ballast Point Manor

5226 Nichols St., P. O. Box 13467 Phone 831-4191
Tampa, Florida

Don Savage, Owner-Manager

Care of mild mental cases, senile disorders and invalids. Alcoholics treated. Aged adjudged cases will be accepted on either permanent or temporary basis.

HIGHLAND HOSPITAL

ASHEVILLE, NORTH CAROLINA

Founded 1904

A DIVISION OF THE DEPARTMENT OF PSYCHIATRY
OF DUKE UNIVERSITY

Accredited by the Joint Commission on Accreditation and Certified for Medicare

Complete facilities for evaluation of and intensive treatment of psychiatric patients, including individual psychotherapy, group therapy, psychodrama, electro-convulsive therapy, Indoklon convulsive therapy, drugs, social service work with families, family therapy, and an extensive and well organized activities program, including occupational therapy, art therapy, athletic activities and games, recreational activities and outings. The treatment program of each patient is carefully supervised in order that the therapeutic needs of each patient may be realized.

Complete modern facilities with 85 acres of landscaped and wooded grounds in the City of Asheville.

Brochures and information on financial arrangements available
Contact: Mrs. Elizabeth Harkins, ACSW, Coordinator of Admissions

or

Charles W. Neville, Jr., M.D.
Assistant Professor of Psychiatry and Medical Director
Area Code 704 - 253-2761



Government News

90th Congress to Consider Medicare and Medicaid Amendments

High on the list of health legislation to be considered by the new Congress convening January 10 are proposals to amend both the medicare and medicaid programs.

Proposed medicare amendments would extend the program to the disabled, include podiatrists' services, add outpatient drugs to Plan B and authorize that billing for services of hospital-based physician specialists be put back under hospitals.

Sen. Russell B. Long (D.La.), chairman of the Senate Finance Committee which handles medicare and medicaid legislation, is pushing a proposal designed to get physicians to prescribe drugs by generic terms for patients under federally aided medical programs. Such an amendment died in a conference committee in the final days of the last Congress.

Amendments to limit federal expenditures under medicaid (Title XIX) are expected to get early consideration by the House Ways and Means Committee. The committee reached agreement on such legislation shortly before adjournment last year, but it was too late to get it through the Congress.

One of the final pieces of legislation passed by the Congress in 1966 authorizes liberalization of the Keogh law under which physicians get a tax break for savings put in qualified pension plans. The full amount of the $2,500 annual maximum was made tax-deductible. Only half of the amount was tax-deductible under the original law.

Other health legislation approved by the Congress in 1966 includes:

Group practice—authorizes federal mortgage guarantees for construction of nonprofit group practice facilities.

Health services—authorizes the Office of Economic Opportunity (antipoverty) to make grants for comprehensive health services programs, including birth control.

Public health—authorizes (1) $145 million, one year extension of PHS programs, including $125 million for project grants for categorical programs. States and the PHS are given greater flexibility in spending the money among the various categories and including other "public health" projects, (2) extends the federal aid vaccination program for three years, and (3) provides for family health services for migratory workers.

Air pollution—authorizes a three year, $186 million extension of the federal anti-air pollution program and provides broader authority for air pollution control activites by localities.

Water pollution—authorizes a $3.7 billion, four year program for cleaning the nation's waterways. It includes initiation of a massive program for combating pollution in major water basins.

Child care—prohibits sale of toys containing hazardous substances and strengthens existing law covering household hazardous substances; does not contain a disputed provision covering children's aspirin and other drug controls in the original legislation.

Narcotics—permits addicts charged with non-violent crimes to choose hospital commitment instead of trial, if the authorities agree, or could be sentenced after trial to hospitals for rehabilitation.

Packaging—requires that over-the-counter drugs and grocery products bear labels clearly showing the contents, quantity, and manufacturer.

Mental health—amends original law to provide grants to assist in the establishment and initial operation of community mental health centers.

Research laboratory animals—provides for federal regulations covering transportation, purchase, sale, housing, care, handling and treatment of such animals.

Military medicare—amends existing law to provide for outpatient care in a physician's office and to include retired reservists and their dependents.

Allied health professions—authorizes $105 million for a three year program to train more medical technicians, therapists and other allied health workers.

Federal Government Institutes Alcoholism Control Program

Department of Health, Education, and Welfare Director John W. Gardner has established a National Center for the Prevention and Control of Alcoholism and appointed an 18 member National Advisory Committee on Alcoholism in an initial step launching the federal program to control and prevent alcoholism.

In announcing the program, Gardner stated its two major aims as (1) The immediate goal of making the best treatment and rehabilitation services available to those who need them now, through both the stimulation of existing resources and the development of new manpower and facilities, and (2) The long range goal of developing effective, practical, and acceptable methods of preventing alcoholism and excessive drinking in all their destructive forms and developing improved therapeutic techniques.

Milton Silverman, special assistant to the HEW assistant secretary for Health and Scientific Affairs, was named coordinator of the program and executive secretary of the advisory committee.

The National Center will be active in a number of major areas including basic research, clinical research, education and prevention, consultation and training and support of local programs.

"It will encourage and support alcohol research in universites and research centers and it will also conduct studies in its own laboratories," Gardner said. "It will not provide treatment for alcoholics, but will concentrate on the support of research, training, and control programs.

"We realize that a program of this kind cannot stand alone. It needs widespread public understanding and support. We will work with organizations and institutions already making great contributions to the prevention and control of alcoholism. Our objective, in brief, is to mobilize public and professional efforts on the scale necessary to overcome the blight of alcoholism."

Meetings

January

2- 6 Neuro-Ophthalmology Symposium, Bascom Palmer Eye Institute, Americana Hotel, Bal Harbour.

5- 7 Postgraduate Seminar in Surgery, University of Miami Department of Surgery and FMA, Fontainebleau Hotel, Miami Beach.

5- 8 Metabolic and Endocrine Disorders-Clinical Considerations, University of Miami School of Medicine and University of Florida College of Medicine, Eden Roc Hotel, Miami Beach.

12-14 Forensic Medicine: The Doctor and the Law, Mound Park Hospital, St. Petersburg.

13-14 Birth Defects Seminar, National Foundation and Jacksonville Hospitals Educational Program, St. Vincent's Hospital, Jacksonville.

13-15 "Current Concepts in Treatment and Diagnosis of Central Nervous System Neoplasms," University of Miami School of Medicine, Eden Roc Hotel, Miami Beach.

15-20 "Acid Base Disorders in Internal Medicine, Surgery and Pediatrics," University of Miami School of Medicine, Fontainebleau Hotel, Miami Beach.

20-21 Seminar on Burns, University of Florida College of Medicine, Gainesville.

22-26 Neonatology, Variety Children's Hospital, Deauville Hotel, Miami Beach.

28-29 Teaching Family Medicine, University of Miami School of Medicine, Jackson Memorial Hospital, Miami.

February

8 Psychiatry in Medical Practice, Advanced Course, University of Miami School of Medicine, Jackson Memorial Hospital, Miami.

8 Psychiatry in Medical Practice, Basic Course, University of Miami School of Medicine, Jackson Memorial Hospital, Miami.

March

2- 4 Some Aspects of Embryology and Pathophysiology of Congenital Heart Disease, University of Florida College of Medicine, Gainesville.

4 Current Concepts in Modern Medicine, Watson Clinic Annual Seminar, Watson Clinic, Lakeland.

17 Psychiatry Seminar, University of Florida College of Medicine, Gainesville.

17 "Psychosomatic Aspects of Gastrointestinal Disease" Seminar and psychosomatic medicine regional meeting, University of Florida College of Medicine, Gainesvlle.

18-20 Amino Acids in Human Disease, University of Miami School of Medicine, Lucayan Beach Hotel, Freeport, Grand Bahama Island.

20-23 Current Status of Genitourinary Roentgenology, University of Miami School of Medicine, Fontainebleau Hotel, Miami Beach.

DIARRHEA
MUCOUS COLITIS
DIVERTICULITIS
SPASTIC URETERITIS
BLADDER SPASM

are relieved with.....



Minimum dosage 400 mg., q. 4 h. until relief is constant, adjust maintenance dosage.

A therapeutic blood level cannot be obtained with small dosage. Trocinate is metabolized and eliminated in the urine as harmless degradation products—a safety factor. Sixteen years of clinical usage with the absence of untoward effects establishes the safety of Trocinate. The autonomic nervous system is not involved in its prompt action.

NOW AVAILABLE IN 2 STRENGTHS,
100 mg. and 400 mg.
PINK SUGAR-COATED TABLETS

Literature and samples available.

WM. P. POYTHRESS & CO., INC.
RICHMOND, VIRGINIA 23217

Manufacturers of ethical pharmaceuticals since 1856



Public Health Topics

The Physician and Syphilis Control

Editor's Note: With this article, the Journal inaugurates a new feature entitled "Public Health Topics." Information which will appear is furnished through the courtesy and cooperation of the Florida State Board of Health, Wilson T. Sowder, M.D., State Health Officer.

T.M.

A physician rendering antepartum care to a 22 year old married patient detected lesions suggestive of secondary syphilis. He called the county health officer, stated his suspicion and requested a darkfield examination if possible. The venereal disease investigator was available. He brought his darkfield microscope. The test was positive. The physician introduced the investigator to the patient and explained that his concern was to locate others who may have been exposed to this infection.

The husband was seen later and he admitted having a prior lesion which may have been primary. His blood specimen was serologically positive with a high titer. He reported two recent female contacts. These were the first four links in a chain of infection eventually involving 14 persons. Six had specific lesions confirmed by darkfield examination and eight, admitting exposure, were treated prophylactically.

These effective control measures were made possible by a physician's prompt report of a suspect case and the cooperation of the VD investigator.

In 1965 in Florida, 2,356 cases of primary and secondary syphilis were recorded, a tenfold increase in a decade. For the period 1956-1958, an average of 206 cases was recorded annually; incidence was at a record low. Currently, Florida has the highest known rate of primary and secondary syphilis of all states, and its four major cities are among the 13 in the nation with the highest rates. The recent increase is particularly marked in teenagers.

In June 1966, the American Medical Association officially directed attention to the outstanding need in the venereal diseases control program—more complete reporting. "These diseases should be reported to the appropriate official health agency. . . . All physicians should so report. . . . The physician and the health authorities should understand the importance of reporting *all* cases for epidemiological investigation."

In April 1965, the Florida Medical Association officially recommended that "(a) There be improved reporting by physicians to the health departments of venereal disease cases, particularly infectious primary and secondary syphilis; (b) There be improved cooperation between private physicians and health departments in contacting follow-up cases."

Nationally, four-fifths of the patients with infectious syphilis are treated by private physi-

cians; however, only 11% of these are reported to public health authorities. There is no evidence that Florida differs from the remainder of the nation. In 1965, of the state's almost 6,000 physicians, only 119 reported cases.

Essential to effective syphilis control is epidemiological study to identify the source and spread of the infection. From July 1965 through June 1966, a total of 1,099 new cases of infectious syphilis was brought to treatment as the result of interviewing 2,066 patients having a diagnosis of early syphilis. An additional 1,482 persons received prophylactic treatment because of known recent exposure. For each case not reported, an average of more than one person needing prompt therapeutic or preventive treatment probably will not receive it. Thus, the chain of infection will extend and the incidence of syphilis will continue upward.

The AMA specified, regarding the reporting of cases: "The physician should have the assurance of confidentiality and the protection of privacy." This always has been the policy in Florida. Patients of private physicians are contacted for epidemiological follow-up only upon specific permission from the physician reporting the case.

Maintaining confidentiality and protection of privacy is basic in the work of the VD investigators. These young men are selected for integrity and tact. All receive special training in the epidemiology of venereal diseases and the laboratory diagnosis of them. They are experienced in darkfield examinations, have the necessary equipment and consider themselves "on call" to provide this service upon request.

The private physician holds the key to syphilis control, and that key is the prompt reporting of all known or suspect cases of infectious syphilis.

Albert V. Hardy, M.D., Dr. P.H.
Assistant State Health Officer
Florida State Board of Health
Jacksonville

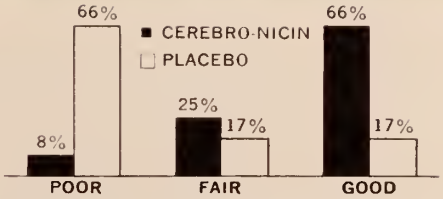
For the treatment of

apathy
irritability
forgetfulness
confusion

in the aging patient

Cerebro-Nicin®

A GENTLE CEREBRAL STIMULANT AND VASODILATOR



EACH CEREBRO NICIN CAPSULE CONTAINS:

Pentamethylene Tetrazole	100 mg
Nicotinic Acid	100 mg.
Ascorbic Acid	100 mg.
Thiamine HCl	25 mg
l-Glutamic Acid	50 mg
Niacinamide	5 mg
Riboflavin	2 mg.
Pyridoxine	2 mg

DOSAGE: One capsule t.i.d. or as prescribed by physician.
AVAILABLE: Bottles of 100, 500, 1000 capsules. **Also elixir pint bottles.**
CONTRAINDICATIONS: There are no known contraindications to Pentamethylene Tetrazole although caution should be exercised when treating patients with a low convulsive threshold.
Most persons experience a flushing or tingling sensation after taking a higher potency niacin-containing compound. As a secondary reaction some will complain of nausea and other sensations of discomfort. This reaction is transient and is rarely a cause of discontinuance of the drug if the patient is forewarned to expect the reaction.
Federal law prohibits dispensing without a prescription.

CEREBRO-NICIN® New double-blind study* shows how effectively senility can be forestalled. Four times as many aging patients showed striking improvement.

*A Double-Blind Study of Cerebro-Nicin, Therapy for the Geriatric Patient, R. Goldberg, Jrn'l. of the Amer. Ger. Soc., June, 1964.

Write for literature and samples . . .

BROWN
THE BROWN PHARMACEUTICAL CO.
2500 W. Sixth Street,
Los Angeles, California 90057

REFER TO PDR



Others Are Saying

In Defense of Doctors

THE DOCTORS. By Martin L. Gross. Random House. 605 pp. $6.95.

"The Doctors" is not an expose of the medical profession as much as it is a weighted forensic of carefully selected, self critical data emanating from physicians themselves. Mr. Gross abundantly reveals that the medical profession is in the process of recognizing and correcting lags in medical education and the optimum application of medical knowledge to healing the multiple and bizarre ills and injuries of man's mind, body and biological function.

For example the American Medical Association (AMA) has just published a report of the Citizens Commission on Graduate Medical Education. "What is wanted," the commission said, "is comprehensive and continuing health care, including not only the diagnosis and treatment of illness but also its prevention and the supportive and rehabilitative care that helps a person to maintain, or return to, as high a level of physical and mental health and well being as he can attain. Few hospitals and few existing specialists consider comprehensive and continuing medical care to be their responsibility and within their range of competence; and not many of the present general practitioners are qualified to fill this role."

The practice of medicine is the meeting of at least two persons, one beset by anxiety, agony, confusion or depression of spirit, the other attempting to counter these ills by bringing to bear selected tests and therapies developed by a medical science that has advanced far greater within the last generation than it had previously developed since the beginning of time. A doctor-patient meeting is one of two human beings each endowed with such physical and psychological variables that no two have even had identical fingerprints since the loss of Eden. The fears and hopes of the one confront the judgment, skill and experience of the other but never in the realm of exact science where two and two are invariably four.

Gross very early in his book points out: "Medical advances emanate daily from the 87 medical schools, several hundred university complexes and other research centers, adding to the prior body of information and forming a cohesive system of medical knowledge." Later on he continues: "The burgeoning medical technology is a two-edged 20th century sword that cuts sharply both ways, for benefit or harm."

A review by Dr. Dan C. Ogle, St. Petersburg physician and executive director of the Pinellas County Medical Society.

No physician can read or assimilate a fraction of this 'burgeoning technology' but must rely on tried and proved methods of diagnosis and treatment together with his judgment, his skill and his innate and compelling desire to help his patient—his professional survival, his personal economy and his reputation are all at stake.

Mr. Gross has mastered the art of gossip. He can quietly glide over a wealth of good truth, and display juicy half truths as a dominant theme. He falteringly admits to much that is good about the medical profession, but over-zealously accentuates those areas of fault that the profession itself is striving to correct. It is hoped that his motives can be construed as constructive.

The practice of medicine will continue to improve and more and more medical knowledge and skill will successfully meet the growing needs of an increasingly health conscious population. All medical organization and all medical education is working toward this end. Mr. Gross himself says, "Naturally the charges of serious failings apply in varying degrees to a varying number of physicians and cannot be considered a blanket indictment, either by doctor-critics or by the author."

Reprinted from the St. Petersburg Times, Nov. 6, 1966.

A COMPLETE BUSINESS SERVICE

Professional Management

FOR THE MEDICAL AND DENTAL PROFESSIONS

PM FLORIDA

233 Fourth Avenue, N.E.
St. Petersburg, Florida
Phone 898-5074

1855 Hillview Street
Sarasota, Florida
Sarasota Phone 958-4493
4771 Bilmark
Ft. Myers, Florida
Ft. Myers Phone 936-3162

PROFESSIONAL MANAGEMENT FOR PHYSICIANS AND DENTISTS since 1932 PM

417 Executive Building
1175 N.E. 125th St.
Miami, Florida 33125
Dade Phone 751-2101
Broward Phone 523-0286

Affiliates of Black & Skaggs Associates
Battle Creek, Michigan

TUCKER HOSPITAL, INC.

212 West Franklin Street

RICHMOND, VIRGINIA

A private hospital for diagnosis and treatment of psychiatric and neurological disorders. Hospital and out-patient services.

JAMES ASA SHIELD, M.D.
GEORGE S. FULTZ, JR., M.D.
CATHERINE T. RAY, M.D.

WEIR M. TUCKER, M.D.
EDWARD W. GAMBLE, III, M.D.
GERALD W. ATKINSON, M.D.



fluocinolone acetonide — an original steroid from

SYNTEX

LABORATORIES INC., PALO ALTO, CALIF.

controls infected inflammatory dermatoses that start from scratch



Neo-Synalar®
(fluocinolone acetonide-neomycin sulfate cream)
Cream

The "itch-scratch" cycle usually associated with inflammation often results in infected dermatoses because broken skin surfaces are particularly vulnerable to pathogenic bacteria.[1] To treat infected inflammatory dermatoses, Neo-Synalar Cream combines the most active topical corticosteroid with a highly reliable antibiotic generally reserved for topical application.

In Neo-Synalar, fluocinoline acetonide controls the inflammation and provides rapid relief from associated pruritus. At the same time, its antibacterial component—neomycin—combats superficial infection caused by many gram-positive and gram-negative bacilli[2] that often colonize and thrive on abraded skin.[1]

A specially formulated vanishing cream base that is greaseless and odor free makes Neo-Synalar cosmetically appealing, and encourages greater patient cooperation.

controls the infection

stops the scratch

Contraindications: Tuberculous, fungal, and most viral lesions of the skin (including herpes simplex, vaccinia, and varicella). Not for ophthalmic use. Contraindicated in individuals with a history of hypersensitivity to any of its components. **Precautions:** Neomycin rarely produces allergic reactions. Prolonged use of any antibiotic may result in overgrowth of nonsusceptible organisms; if this occurs, appropriate therapy should be instituted. Where severe local infection or systemic infection exists, the use of systemic antibiotics should be considered, based on susceptibility testing. While topical steroids have not been reported to have an adverse effect on pregnancy, the safety of their use on pregnant females has not absolutely been established. Therefore, they should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time. **Side Effects:** Side effects are not ordinarily encountered with topical corticosteroids. As with all drugs, however, a few patients may react unfavorably to Neo-Synalar under certain conditions. **Availability:** Neo-Synalar Cream (0.025% fluocinolone acetonide, neomycin sulfate, equivalent to 0.35% neomycin base), 5 and 15 Gm. tubes.

References: 1. Pillsbury, D. M., Shelley, W. B., and Kligman, A. M.: A manual of cutaneous medicine, Philadelphia, Saunders, 1961, p. 79. **2.** Barber, M., and Garrod, L. P.: Antibiotic and chemotherapy, Baltimore, Williams and Wilkins, 1963, p. 111.

Deaths

Lambdin, Ludlow, St. Petersburg; born in Maynardville, Tenn., May 21, 1879; University of Tennessee College of Medicine, 1900; interned at St. Luke's Hospital, Nashville, Tenn.; engaged in the general practice of medicine in Tennessee for 13 years, coming to St. Petersburg in 1913; during World War I, served as chief surgeon of the 158th Brigade, attaining the rank of major; was president of the Pinellas County Medical Society in 1922, and was chief of staff at Mound Park Hospital in 1924; was presented with an award of merit by the University of Tennessee in 1953 for 50 years of service; was a member of the American Medical Association and the Southern Medical Association; died Oct. 20, 1966, aged 87.

Murphy, Chester Homer, Bartow; born in Williamstown, Mich., Dec. 10, 1875; Cleveland-Pulte Medical College, 1899; interned at Huron Road Hospital, Cleveland, Ohio, 1899-1902; engaged in the general practice of medicine in Lansing, Mich., for 22 years, came to Daytona Beach in 1924 and moved to Bartow four years later; served as a captain in the Army Medical Corps during World War I; held membership in the American Medical Association; died Sept. 19, 1966, aged 91.

Richardson, George William, Jacksonville; born in Bulloch County, Ga., Jan. 17, 1895; Medical College of Georgia, 1925; interned at the Duval County Hospital, Jacksonville, 1925-1926; engaged in the general practice of medicine from 1926-1948, and in 1948 began the private practice of obstetrics and gynecology; was an associate general surgeon at Duval Medical Center, 1926-1938, and St. Vincent's Hospital, 1926-1948, and was staff consultant in obstetrics and gynecology at St. Vincent's Hospital from 1948; held membership in the American Medical Association; died Nov. 25, 1966, aged 71.

Royer, Don John, West Palm Beach; born in Arcanum, Ohio, Aug. 18, 1894; Ohio State University College of Medicine, 1916; interned at St. Francis Hospital, Columbus, Ohio, 1915-1916; engaged in the practice of radiology in Ohio, Indiana and Illinois for 23 years before coming to West Palm Beach; served as a lieutenant in the Army Medical Corps during World War I; held membership in the American Medical Association, Illinois State Medical Society, Southern Medical Association, Radiological Society of North America and Chicago Roentgen Society; died Oct. 24, 1966, aged 72.

Sinden, Richard H., St. Petersburg; born in Washington, D.C., Sept. 7, 1918; Duke University School of Medicine, 1943; interned at Duke University Hospital, 1943-1944, and served residencies at Duke University Hospital, 1946-1947 and 1948-1949, and New England Deaconess Hospital, 1947-1948; a specialist in diabetes and internal medicine, began practice in St. Petersburg in 1950; served in the Third Army, European Theatre, during World War II, attaining the rank of captain in the Medical Corps; held membership in the American Medical Association, American Society of Internal Medicine, American Diabetes Association and Florida Society of Internal Medicine; was a past president of the Florida Diabetes Association and a diplomate of the American Board of Internal Medicine; died Oct. 21, 1966, aged 48.

HAVE YOU MARKED YOUR CALENDAR?

Florida Medical Association

93rd Annual Meeting

May 11-14, 1967

Americana Hotel

Bal Harbour

APPALACHIAN HALL

ASHEVILLE Established 1916 NORTH CAROLINA



An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.

Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.

Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

Wm. Ray Griffin Jr., M.D.
Robert A. Griffin, M.D.

Mark A. Griffin Sr., M.D.
Mark A. Griffin Jr., M.D.

A Vacation Wish For My Dear Doctor

Editor's Note: The Journal is pleased to publish the following poem as one of a series dedicated to her various physicians by Mrs. Leona Levin, a retired schoolteacher of Miami Beach who has been crippled by arthritis. Mrs. Levin writes under the pen name of Lena Lin Louis. The poems are presented as examples of all-too-rare expressions of gratitude to physicians. The doctors whose names appear have granted permission for their use.

T. M.

Dear Dr. Milton Sanes Goldman
and his wife Lucille—
Have a happy vacation, rest
and have fun.
Enjoy all the blessings God's
wonders reveal—
Awake at noon, eat well, do as
you please till day is done.

Close the door on the many
who are overwrought—
Thinking only of themselves
and the cures you have brought.
Doctor, I must confess I'm as
guilty as anyone—
Wishing you were here when
pain persists to come.

Barren or prolific, cocks and hens
of the human race of mice—
Can all wait awhile for your
infallible advice.
The ailing old she goats and
their gouty old pals—
Will be well taken care of
by Helen and Karen—
Your capable office gals.

Throw back your head, laugh
and be gay—
Reburnish yourself with
youth, strength and power.
With your clever diagnosis
and your way—
A race of superior gents and dames
will unquestionably flower.

Now your dear patients can
bemoan their fate—
For it is a full month
they will have to wait.

Hurrah! for my medico and
his charming wife—
They are out on their own
enjoying life.

Lena Lin Louis
Corny but sincere



ACTIVATE MUCUS LIQUEFACTION

in Bronchitis, Sinusitis, Asthma with well-tolerated

IODO-NIACIN®

Each Slosol coated tablet contains Potassium Iodide 135 mg. and Niacinamide Hydroiodide 25 mg.

Taste-free Iodo-Niacin provides mucus liquefying KI in a palatable form which on prolonged use greatly reduces the possibility of iodism.

In *The Pharmacologic Basis of Therapeutics,* Goodman and Gilman affirm, "Iodide salts are useful expectorants when it is desired to liquefy tenacious bronchial secretions, for example, in the later states of bronchitis, bronchiectasis, and asthma." Ed.3, New York, Macmillan, 1965, p. 815.

When discussing symptomatic therapy of status asthmaticus, Hildreth recently stated, "There is little evidence that any expectorant other than potassium iodide is of practical value in this situation." Hildreth, E. A., Postgrad. Med., 38:460 (Nov.) 1965.

When Iodo-Niacin was used for iodide therapy continuously for over one year, symptoms of iodism were predominantly absent or of minor extent.

Dosage and how supplied: Adults—two tablets after meals taken with water. Children over eight years—one tablet after meals with water. Available in bottles of 100.

Caution: Serious side effects from Iodo-Niacin are rare. Caution is recommended in persons with known sensitivity to iodides. Pulmonary tuberculosis is considered a contraindication to the use of iodides by some authorities, and should be used with caution in such cases. As with all drugs, Iodo-Niacin may cause an idiosyncrasy in some patients. Rare cases of goiter with hypothyroidism have been reported in adults and in newborn infants of mothers taking iodides for prolonged periods. Use appropriate precaution in pregnancy and in individuals receiving Iodo-Niacin for prolonged periods.

COLE PHARMACAL COMPANY, INC.
3721 Laclede Avenue, St. Louis, Missouri 63108

Florida Medical Association

735 Riverside Ave., P. O. Box 2411

Jacksonville, Florida 32203

Officers

George S. Palmer, M.D., President — Tallahassee
W. Dean Steward, M.D., President-Elect — Orlando
William J. Dean, M.D., Vice President — St. Petersburg
Franklin J. Evans, M.D., Speaker of the House — Coral Gables
James T. Cook, M.D., Vice Speaker — Marianna
Floyd K. Hurt, M.D., Secretary-Treasurer — Jacksonville
H. Phillip Hampton, M.D., Immediate Past President — Tampa
W. Harold Parham, Executive Director — Jacksonville

Councils

Jesse W. Castleberry, M.D., Chairman, Council on Allied Professions and Vocations — Orlando
John J. Cheleden, M.D., Chairman, Judicial Council — Daytona Beach
Joseph C. VonThron, M.D., Chairman, Council on Legislation and Public Agencies — Cocoa Beach
Jack A. MaCris, M.D., Chairman, Council on Medical Economics — St. Petersburg
David W. Martin, M.D., Chairman, Council on Medical Education and Hospitals — West Palm Beach
William R. Daniel, M.D., Chairman, Council on Medical Services — Orlando
Richard C. Dever, M.D., Chairman, Scientific Council — Miami
Warren W. Quillian, M.D., Chairman, Council on Special Activities — Coral Gables
Edward W. Cullipher, M.D., Chairman, Council on Specialty Medicine — Miami
Mason Romaine III, M.D., Chairman, Council on Voluntary Health Agencies — Jacksonville

Information for Authors

Manuscripts submitted for publication in the Journal of the Florida Medical Association should be double or triple spaced on white bond, including title page, illustration legends, charts and graphs, table headings, footnotes and bibliography.

Submit original manuscript and two copies. Copying by electrostatic dry process (not wet process) is preferred to tissue copies. Retain one additional copy in your office for proofreading. All material is submitted with the understanding it is subject to editing.

Photographs should be submitted as 5x7 glossy prints, untrimmed and unmounted; number each photograph *lightly* on the back with pencil and indicate top. Charts, graphs and medical illustrations should be submitted as india ink drawings on white gloss paper; remember to make details large enough to allow for photographic reduction. It is a policy of the Journal that authors pay for any cuts made to illustrate their papers.

Titles should be short, specific and clear. Omit phrases such as "The Use of," "Observations on." If paper was presented at a meeting, indicate name of organization, city, month, day and year.

Only original papers not previously published are accepted for publication. Manuscripts submitted for publication are subject to review and approval by the Journal Publications Committee. Except by invitation, only papers from members of the Florida Medical Association are considered for publication.

References should be typewritten, double or triple spaced, beginning on a new sheet of paper entitled "References." Number references in the text in order of citation and prepare bibliography in the same order. Bibliographies should conform to the style of the Index Medicus. The Journal prints only bibliographies of eight references or less; bibliographies of more than eight references are referred to at the end of the paper with the statement "References are available from the author upon request."

All manuscript pages should be numbered consecutively. Within the manuscript, numbers one to nine should be spelled out except when used for units of measurement; for numbers above nine, numerals should be used. Dorland's Medical Dictionary and Webster's International Dictionary may be used as standard references. Scientific names for drugs should be used when possible. Copyright or trade names of drugs should be capitalized.

"Take a laxative" is a harsh sentence

Although there are more than 60 ethical laxatives available for the constipated patient, many, unfortunately, do not really produce an effect much like a normal bowel movement. Instead they whip the bowel, torment it and leave it irritated, inflamed and exhausted.
On the other hand, Dulcolax provides a nearly normal movement. Through its unique contact action, it induces the kind of natural contraction waves of the colon necessary for gentle, complete, comfortable bowel movements.
For your next constipated patient, try Dulcolax–the laxative with the gentle touch.

Dulcolax, brand of bisacodyl tablets (5 mg.)

Under license from
Boehringer Ingelheim
G.m.b.H.

Geigy Pharmaceuticals
Division of
Geigy Chemical Corporation
Ardsley, New York

Dulcolax®
a gentle persuasion

Geigy


at the site of infection
(where it counts)...

Ilosone® provides more antibacterial activity than any other oral erythromycin

Acid stable, better absorbed... Ilosone produces faster, higher, more prolonged blood levels, even in the presence of food[1-3]

Because it is the most active form of oral erythromycin, Ilosone can help assure consistently greater antibacterial activity at the site of infection. Ilosone produces peak antibacterial blood levels two to four times those of other erythromycin preparations.[1,2] Not only are these levels attained earlier, but they are maintained for much longer periods. Even the presence of food does not seem to affect the activity of Ilosone.[1,3]

In the treatment of patients with bacterial infections susceptible to erythromycin, Ilosone has compiled an excellent therapeutic record. Since it exerts its greatest activity against gram-positive organisms, it is particularly useful in common respiratory and soft-tissue bacterial infections. Ilosone kills—not merely inhibits—streptococci, pneumococci, and more strains of staphylococci than any other macrolide antibiotic. This bactericidal action, coupled with the high antibacterial levels attained, makes Ilosone especially valuable in patients with low host resistance, such as infants, debilitated individuals, and diabetics.

Ilosone has shown no cross-resistance with penicillin and may be effective against organisms that have become resistant to that agent. Despite its high antibacterial activity, Ilosone has demonstrated a low incidence of side reactions. Blood dyscrasias, ototoxicity, and tooth staining have not been observed. Infrequent cases of drug idiosyncrasy, manifested by a cholestatic jaundice, have occurred, but there have been no known definite residual effects.

700121

Ilosone®

Lilly

Erythromycin Estolate

(See next page for prescribing information.)

Ilosone®/ the most active oral form of erythromycin

Description: Ilosone is the most active form of oral erythromycin that has been developed. Because it is stable in acid, well absorbed, and excreted in lesser amounts in the bile, it provides faster, higher, and longer-lasting levels of antibacterial activity (ABA) in the serum, even when taken with food, than do comparable doses of erythromycin.

Indications: Ilosone is indicated in infections caused by microorganisms sensitive to its action (especially staphylococci, hemolytic streptococci, and pneumococci). The drug is therefore useful in a high proportion of bacterial diseases encountered in clinical practice and particularly in the treatment of bacterial infections of the upper and lower respiratory tract and soft tissues.

In the treatment of acute bacterial pharyngitis and tonsillitis, this antibiotic has promptly eradicated the bacteria (streptococci) and has produced a parallel prompt clinical improvement. There have been no group A beta-hemolytic streptococci resistant to this preparation. In beta-hemolytic streptococcus infections, treatment should be maintained for ten days to prevent the development of rheumatic fever or glomerulonephritis.

Erythromycin estolate has proved to be very effective in pneumococcus pneumonia and in acute bronchitis with pneumococci on culture. Bronchopneumonia and otitis media in children have responded well to its use.

The antibiotic has been used very successfully in staphylococcus infections. Good therapeutic results have been obtained in soft-tissue infections, abscesses, cellulitis, carbuncles, wound infections, and furunculosis.

In serious staphylococcus infections, erythromycin preparations should be used only in combination therapy with other antimicrobial agents. As is the case with any treatment regimen used in these severe conditions, surgical procedures should be performed when indicated, and large dosages of the antimicrobial agents should be employed. In this fashion, Ilosone has been effective in staphylococcus pneumonia, osteomyelitis, septicemia, empyema, and meningitis.

Multiple 500-mg. doses of the drug have been useful in gonorrhea and syphilis. Since penicillin is the drug of choice for the treatment of syphilis and gonorrhea, erythromycin estolate should be employed for these infections only in patients with a history of penicillin allergy. Also, other infections due to susceptible bacteria in patients known to be hypersensitive to penicillin or other antibiotics may be considered for treatment with Ilosone.

Contraindications: Ilosone is contraindicated in patients with a known history of sensitivity to this drug and in those with preexisting liver disease or dysfunction.

Side-Effects: Data obtained from seven years' use of propionyl erythromycin ester and erythromycin estolate (Ilosone) indicate that hepatic dysfunction with or without clinical jaundice may occur during or following courses of therapy with the drug.

Changes in liver function tests in such cases have been indicative of intrahepatic cholestasis. The symptoms appear to be the result of a form of sensitization. The initial symptoms have appeared in some cases after a few days of treatment but generally have followed one or two weeks of continuous therapy or several courses of the drug. Symptoms reappear promptly if the drug is readministered to sensitive patients, usually within forty-eight hours. Eosinophilia was noted in peripheral blood counts. The findings readily subsided without apparent residual effects when treatment was discontinued. Recovery was delayed in one reported instance. The physician indicated in this case that either drug-induced jaundice or viral hepatitis may have been responsible for the findings.

In one clinical study involving ninety-three patients treated with the antibiotic, three cases of jaundice were observed and an additional eleven cases developed some changes in liver function tests. Three of the patients had abnormal liver function tests a second time on readministration of the drug.

Even though it is assumed that not all cases of jaundice have been reported, it seems clear that the number is small compared with the amount of drug that has been used. Reported cases have included persons in whom there had been administered other drugs known to be associated at times with hepatic side-effects and cases in which the presence of viral hepatitis or other disease may have been responsible for the findings. In some of the cases, associated gastro-intestinal symptoms simulated the colic of biliary tract disease. In other instances, clinical symptoms and results of liver function tests resembled findings in extrahepatic obstructive jaundice. It appears that the occurrence of jaundice after administration of Ilosone is infrequent, but further investigations are being made to estimate its incidence more accurately.

In those cases mentioned above in which jaundice appeared to be definitely related to use of the drug, laboratory findin characterized by increased direct-reacting bilirubin, e alkaline phosphatase levels, negative or weakly positive c flocculation and thymol turbidity tests, elevated serum gl oxalacetic transaminase levels, peripheral eosinophilia, a mal cholecystograms.

Individual idiosyncrasy seems evident since jaundice l been reported in other patients taking prolonged courses medication. Patients with chronic infection have been giv to 2 Gm. of the drug daily for periods of two to six montl patients with rheumatic fever have taken prophylactic d 0.5 Gm. daily for two years without difficulty. In one gr 144 patients who received the drug daily for two years, n dice was noted. It was of interest that members of six o patients' families, who were not taking the drug, had e of jaundice during the study period.

Transaminase and serum alkaline phosphatase level determined in a group of fifty-four adults and children w 250 mg. of Ilosone daily for an average of sixteen mon rheumatic fever prophylaxis. The results were compare those of a similar group of forty-four patients who receive icillin. There were no cases of jaundice in either group. Ele of SGPT and serum alkaline phosphatase levels during the of treatment was observed in one patient treated with I and in two patients treated with penicillin. Seven other p in the group receiving Ilosone and four others in the per group showed elevations in one of the tests at some time administration of the drugs.

Very satisfactory therapeutic results, without toxicity, reported in 102 pediatric patients who received short-term day) courses of Ilosone in the treatment of streptococcus tions. Results of liver function tests in these patients were parable to those in a similar control group who had re penicillin.

Gastro-intestinal disturbances not associated with hepa fects are observed in a small proportion of individuals as a of a local stimulating effect of the medication on the alime tract; however, the normal intestinal gram-negative bac flora is not appreciably altered by erythromycin drugs.

Although allergic manifestations are uncommon with t of erythromycin, there have been occasional reports of urti skin eruptions, and, on rare occasions, anaphylaxis.

Administration and Dosage: Ilosone is administered orally.
Ilosone Pulvules®
Ilosone Chewable Tablets
Ilosone Drops
Ilosone, 125, for Oral Suspension

For infants and for children under twenty-five pounds of weight, the usual dosage is 5 mg. per pound every six hour children twenty-five to fifty pounds, 125 mg. every six h (Tablets Ilosone Chewable should be chewed or crushed swallowed with water.)

For adults and for children over fifty pounds, the usual d of Ilosone is 250 mg. every six hours.

For severe infections, these dosages may be doubled.

When larger doses are indicated, parenteral erythro therapy should be considered.

In the treatment of syphilis, the recommended total dos 20 to 30 Gm. given in divided doses for a period of ten to f days. Close follow-up of the patient is necessary since ery mycin drugs have not had adequate evaluation in all stag syphilis. Examinations of spinal fluid are recommended as of the follow-up therapy.

For gonorrhea, 500 mg. four times a day for four day recommended. In the treatment of gonorrhea, patients w suspected lesion of syphilis should have a dark-field examin before receiving antibiotics, and monthly serologic tests s be made for a period of three months.

How Supplied: Pulvules Ilosone, Capsules, N.F., 125 and 250 (equivalent to base), in bottles of 24 and 100.

Tablets Ilosone Chewable, N.F., 125 mg. (equivalent to b in bottles of 50.

Ilosone Drops, 5 mg. (equivalent to base) per drop, in 1 size packages, with dropper calibrated at 25 and 50 mg.

Ilosone, 125, for Oral Suspension, N.F., 125 mg. (equiv to base) per 5-cc. teaspoonful, in 60 and 150-cc.-size pack

References: 1. Griffith, R. S., and Black, H. R.: Am. J. M. Sc., *247*:69, 2. Griffith, R. S., and Black, H. R.: Antibiotics & Chemother., *12*:398, 3. Hirsch, H. A., Pryles, C. V., and Finland, M.: Am. J. M. Sc., *239*:198, 19

Additional information available to physicians upon request.
Eli Lilly and Company, Indianapolis, Indiana 46206.

Li

Index to Advertisers

Abbott Laboratories
Erythrocin Sulfas 58-60

Ames Co., Inc.
Labstix ..... Third Cover

Anclote Manor 51

Anderson Surgical Supply Co. 72

Appalachian Hall 83

Ayerst Laboratories
Mediatric 64-65

Ballast Point Manor 72

Bristol Laboratories
Tetrex F 67

Brown Pharmaceutical Co.
Cerebro-Nicin 77

Burroughs-Wellcome Co.
Empirin 66a

Ciba Pharmaceuticals
Otrivin 46a

Cole Pharmacal Co.
Iodo-Niacin 85

Convention Press 52

Dorsey Laboratories
Trest 90, 90a
Triaminic 10a
Tussagesic 10a-62

DuPont
Symmetrel 46a

Duvall Home 54

Geigy Pharmaceuticals
Ducolox 86a
Hygroton 68-69

Glenbrook Laboratories
Bayer Aspirin 50

Guild of Prescription Opticians 50a

Highland Hospital, Inc. 72

Hill Crest Hospital 89

Hynson, Westcott & Dunning, Inc.
Lactinex 3

Lederle Laboratories
Aristocort 66a
Declomycin 46a
Stresscaps 55
Tine Test 6

Eli Lilly & Co.
Cordran 14
Illisone 86a
Tuinal 50a
V-Cillin K 6a

Medical Supply Co. 61

William S. Merrell Co.
Alertonic 48-49

Neisler Laboratories
Diutensen-R 12-13

New Orleans Graduate Medical Assembly 52

Parke-Davis & Co.
Chloromycetin ..... Second Cover

Pitman-Moore Co.
Novahistine LP 70-71

P. L. Dodge Memorial Hospital 51

PM of Florida 79

William P. Poythress & Co.
Trocinate 75

Riker
Estomul 11

A. H. Robins, Inc.
Phenaphen 6a

Roche Laboratories
Ganatol 66a
Librium ..... Back Cover

G. D. Searle Co.
Lomotil 46a

Smith, Kline & French
Thorazine 7

Syntex Laboratories
Neo-Synalar 80-81
Norinyl 8-9

Surgical Supply Co. 51

Tar Gard 50a

Tucker Hospital, Inc. 79

S. J. Tutag
Aquatag 66

Valentine Co., Inc. 66

Walker Laboratories
Quinamm 10

Winthrop Laboratories
Neo-Synephrine 4

Wyeth Laboratories
Equanil 56-57
Pen-Vee K 47

Classified Advertisements

Advertising rates for this column are $5.00 per insertion for ads of 25 words or less. Add 20¢ for each additional word.

physicians wanted

General Practitioners

GENERAL PRACTITIONER WANTED (AAGP) for north Florida college town. Vacancy in busy two man practice in medicine, pediatrics and obstetrics. Immediate excellent income with eventual full partnership. Write C-614, P.O. Box 2411, Jacksonville, Fla. 32203.

GENERAL PRACTITIONER WANTED: Orlando, Orange County, East Central. Florida license required. Full time opening in county-supported medical clinic. Contact B. S. Webster, M.D., Medical Director, Orange County Medical Clinic, 832 W. Central Ave., Orlando 32805. Phone 241-4311, ext. 364.

PHYSICIAN NEEDED: Sun City Center, Del E. Webb Corporation-built retirement community, 1,700 persons, south of Tampa, has urgent need of physician, either general practice or geriatrics. For first year will provide 1,300 sq. ft., rent-free office; will pay utilities; will provide exclusive use of new equipment worth $27,000; will assist in locating suitable residence. Contact R. J. Jones, P. O. Box 5016, Sun City Center, Florida 33571.

EXCELLENT OPPORTUNITY for general practitioner in community of 15,000; central Florida; 76 bed JCAH hospital. Write or call collect R. C. Thompson, Bartow Memorial Hospital, Bartow, Fla.

GENERAL PRACTITIONER needed in growing surburban area of over 7,000, east of Orlando presently without M.D. Area site of new Florida Technological University to be opened 1968. Office space will be built. Contact H. Wayne Todd, D.D.S., 10043 E. Colonial Dr., Orlando 32807. Phone (305) 277-9420.

WANTED: General Practitioner for immediate occupancy as an associate with well established elderly G.P. Good prospect for future ownership. Well equipped office. New hospital under construction. Good nurse available. Write or phone: C. H. Kirkpatrick, M.D., Arcadia, Fla. 33821. Phone WA8-5311.

WANTED: General practitioner associate, leading to partnership. Practice approximately one half industrial. Ideal central Florida community. Send detailed resume to C-716, P.O. Box 2411, Jacksonville, Fla. 32203.

WANTED: General practitioner for north Florida beach resort city. Rapid growth. Facilities and other generous financial incentives offered. Write P.O. Box 9190, Panama City Beach, Florida 32401.

Locum Tenens

Locum Tenens general practice wanted from June 1 through August 30. Could earn as much as $3,000 net per month or more. Also could lead to permanent association, if mutually agreeable. Florida license required. Send curriculum vitae first letter. Write C-733, P.O. Box 2411, Jacksonville, Fla. 32203.

Specialists

PEDIATRICIAN: Board eligible, to join two board pediatricians in rapidly growing Southeastern Florida coastal college town. Early partnership anticipated, excellent hospitals nearby. Send references and curriculum vitae in first letter. C-719, P.O. Box 2411, Jacksonville, Fla. 32203.

WANTED IMMEDIATELY: Pediatrician, internist, obstetrician and surgeon (capable of general practice) to join surgeon in a group. Best references required. Guaranteed minimum $18,000 plus percentage of profits or salary of $25,000. Write C-728, P.O. Box 2411, Jacksonville, Fla. 32203.

OBSTETRICIAN-GYNECOLOGIST WANTED: To associate with two man group. Large established practice in Miami; Board eligible or certified; prefer under age 35. Write P.O. Box 384, Miami Shores, Fla. 33153.

OPENING IN INTERNAL MEDICINE in 15 man group with four in internal medicine. Guarantee first year, partnership in 2 to 3 years. Write to John E. Bechtold, M.D., Palm Beach Medical Group, P.O. Box 2068, West Palm Beach, Fla. 33402.

WANTED: Board eligible general surgeon under age 40 for association with two general surgeons in greater Miami area. Florida license required. Write C-699, P.O. Box 2411, Jacksonville, Fla. 32203.

WANTED: Doctor, internal medicine preferred, for Rainbow Lakes Estates. Community mostly retirees, Marion County, Florida. Offer: air-conditioned office space rent free and utilities furnished for two years; house available. Three hospitals radius 30 miles. Ambulance service available. Write to Joseph D. Stearns, Route 2-A, Box 66, Dunnellon, Florida.

PEDIATRICIAN: To join two pediatricians (shared expenses- individual practices). Must be board qualified, have Florida license, and under age 40. Choice city lower West coast. Write C-729, P.O. Box 2411, Jacksonville, Fla. 32203.

INTERNIST: Florida group of board certified specialists desires internist with gastroenterology training capable of doing fluoroscopy and x-ray interpretation. Academic, financial, personal satisfaction. Excellent modern hospitals. Beautiful area. Write C-730, P.O. Box 2411, Jacksonville, Fla. 32203.

WANTED: Internist, board qualified or board certified in internal medicine, Florida licensed. To be associated with a group of three internists. Salary and percentage basis the first year, with minimum guarantee of $18,000. Located on Southeast coast of Florida. Future partnership assured. Write C-731, P.O. Box 2411, Jacksonville, Fla. 32203.

OBSTETRICIAN-GYNECOLOGIST, board eligible or certified, to join two diplomates in private practice, Miami, Florida. Medical school appointment available. Salary first year, early partnership. Send resume. Write C-725, P.O. Box 2411, Jacksonville, Fla. 32203.

Miscellaneous

STUDENT HEALTH PHYSICIANS: Openings July 1967, for active, young general practitioners, internists or pediatricians interested in adolescents. Comprehensive student health service directed toward modern community health program. Affiliated with major University Medical Center in Southeast. Opportunity for teaching, research and faculty status if qualified. Compensation to $17,000 with benefits. One immediate appointment available at $14,625. Enclose full resume with first correspondence. Write C-722, P.O. Box 2411, Jacksonville, Fla. 32203.

OPPORTUNITY FOR DOCTORS who want to join a multi-specialty group—who want to practice in Florida. A senior surgeon with a large practice and with adequate facilities including laboratory, x-ray and physical therapy departments, desires to confer with board eligible or board certified doctors. The intent is to form a new multi-specialty group practice. Close proximity to a new 500 bed hospital. All inquiries held in strict confidence. Reply to: Jay S. Lombardy & Associates, Management to the Medical Profession, 1177 N.E. 8th St., Delray Beach, Florida 33444.

PHYSICIANS WANTED: Full time industrial physicians for permanent employment in DuPont Company plants. Excellent opportunity. General practitioner preferred. Salary open. Immediate opening at May Plant in Camden, S.C. Please write to: G. W. Hammon, Personnel Section, E. I. DuPont De Nemours & Co. An equal opportunity employer.

GENERAL PRACTITIONER OR INTERNIST: Medical offices available. One to four doctors accommodated. Modern structure; utilities and janitor service included. Many medical facilities are found among other tenants. Located in the heart of Winter Park, Fla. Telephone: 644-8217. Write: c/o 240 New England Building, Winter Park 32789.

real estate

FOR RENT: Two offices in professional building with other doctors and dentists. Fine location with ample parking. One office 1,000 sq. ft. and the other 1,100. Write Clara M. Hensley, 1724 Drew St., Clearwater, Fla.

FOR SALE: 15 bed hospital, fully equipped and approved by State Board of Health and Medicare. For information write C-715, P.O. Box 2411, Jacksonville, Fla. 32203.

FOR SALE: Going Ranch. 6,400 acre ranch with highway frontage and own airstrip. 1,000 acres improved pasture, barn and cow pens. Deep creek plus wells and windmills. Good stand of pulp wood. $200 per acre with good terms. Jarrett Hamilton Realty, Box 1007, Arcadia, Fla. 33821.

practices for sale

AVAILABLE: General practitioner's office practice, equipment, records. Ready for immediate occupancy. Phone: Delray Beach, Fla. 276-4881, or Boynton Beach, Fla. 732-9234; or write W. L. Hurt, M.D., 25 N.E. 4th Avenue, Delray Beach 33444.

situations wanted

General Practice physician with 14 years experience including general surgery and industrial medicine desires association with individual or group. Write C-732, P.O. Box 2411, Jacksonville, Fla. 32203.

The Florida Medical Association offers placement assistance through the Physician Placement Service, P. O. Box 2411, Jacksonville 32203. This service is for the use of physicians seeking locations, as well as physicians seeking associates, and is without charge.

Hill Crest
HOSPITAL
(Formerly Hill Crest Sanitarium)

7000 5TH AVENUE SOUTH
Box 2896, Woodlawn Station
Birmingham, Alabama 35212
Phone: 205 - 595-1151

A patient centered independent hospital for intensive treatment of nervous disorders . . .

Hill Crest Hospital was established in 1925 as Hill Crest Sanitarium to provide private psychiatric treatment of nervous or mental disorders. Individual patient care has been the theme during its 41 years of service.

Both male and female patients are accepted and departmentalized care is provided according to sex and the degree of illness.

In addition to the psychiatric staff, consultants are available in all medical specialities.



MEDICAL DIRECTOR:
James A. Becton, M.D., F.A.P.A.

CLINICAL DIRECTORS:
James K. Ward, M.D., F.A.P.A.
Hardin M. Ritchey, M.D., F.A.P.A.

HILL CREST is a member of:
AMERICAN HOSPITAL ASSOCIATION . . . . . NATIONAL ASSOCIATION OF PRIVATE PSYCHIATRIC HOSPITALS . . . ALABAMA HOSPITAL ASSOCIATION . . . BIRMINGHAM REGIONAL HOSPITAL COUNCIL.
Hill Crest is fully accredited by the Joint Commission on Accreditation of Hospitals.

Hill Crest
HOSPITAL
BIRMINGHAM, ALABAMA

It works.

SUMMARY:

TREST® (METHIXENE HYDROCHLORIDE) relieves G.I. spasm, hyperactivity and associated pain by directly antagonizing the parasympathetic nervous system.

Each tablet contains methixene hydrochloride, 1 mg.

INDICATIONS: Gastrointestinal Spasm and Hypermotility.

CONTRAINDICATIONS: Pyloric obstruction, gastric retention, obstructive organic disease of the gastrointestinal tract, organic cardiospasm, duodenal stenosis, stenosing peptic ulcer, and urinary bladder neck obstruction or prostatic hypertrophy are contraindications to the use of this drug.

WARNING: Overdosage produces anticholinergic side effects. Although the animal reproduction studies are negative, until there is clinical confirmation of safety in pregnancy, this product should not be used in women who may become pregnant unless in the opinion of the physician the benefits outweigh the risks.

PRECAUTIONS: Use only with caution in patients with certain types of cardiovascular disease, since anticholinergic drugs may cause arrhythmias. Extensive clinical studies of TREST have shown no evidence of glaucoma. However, the possibility exists that it can occur since it has been reported as a characteristic side effect of anticholinergic drugs. This product does not replace definitive treatment in organic gastrointestinal disease.

SIDE EFFECTS: Side effects are generally absent when TREST is used in the recommended dosage of 1 to 2 mg. three times daily. Uncommonly, allergy or sensitivity to the drug may be manifested by generalized rash or widespread desquamation. In case of prolonged or massive overdosage, dry mouth, blurred vision, and urinary retention, typical side effects common to anticholinergic drugs, may occur. Occasionally, sensitive patients may notice mild dryness of mouth or slight blurring of vision from doses of 2 mg. or more. Most patients tolerate single doses of 5 mg. without such side effects.

DOSAGE: The usual adult dosage is 1 mg. by mouth three times daily. If necessary, the dose may be increased to 2 mg. three times daily. Pediatric dosage has not been determined.

CAUTION: Federal law prohibits dispensing without prescription.

Puts the G.I. tract to rest

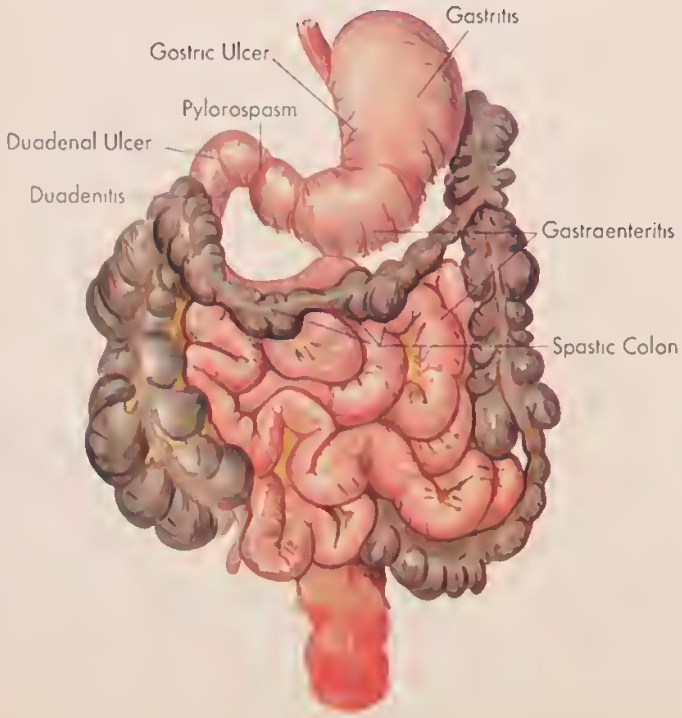
DORSEY LABORATORIES • *a division of The Wander Company* • Lincoln, Nebraska

4848

Printed in U.S.A. 10/66

An antispasmodic that antagonizes.

TREST® (METHIXENE HYDROCHLORIDE) relieves gastrointestinal spasm, hyperactivity and associated pain in:



Put the gut to rest with your prescription for TREST®

(METHIXENE HYDROCHLORIDE)



Evidence that TREST®
(METHIXENE HYDROCHLORIDE) works.

EFFECTIVENESS AND SAFETY

t.i.d. dosage in milligrams

1 mg. symptomatic relief

2 mg. upper recommended clinical dose/greater pharmacalagic activity and symptamatic relief/side effects uncamman

10 mg.

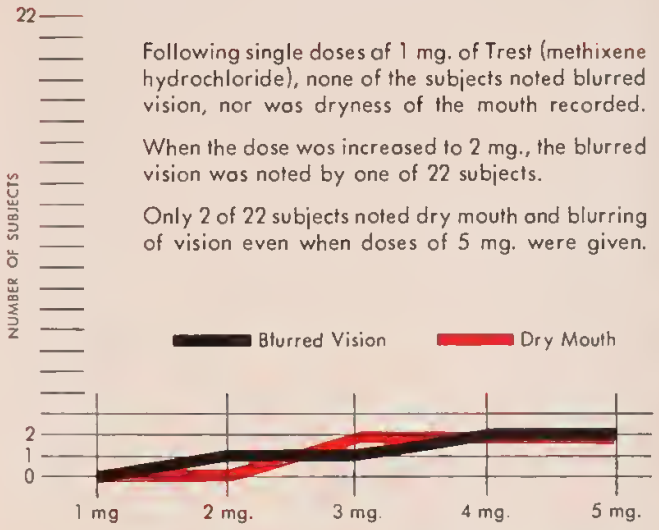
Studies with 372 subjects revealed no adverse effect upan vital argans when dasage was increased 10 times the normally effective dase af 1 mg. t.i.d. far periods up ta 2½ years af continued administratian.

LACK OF SIDE EFFECTS

Following single doses of 1 mg. of Trest (methixene hydrochloride), none of the subjects noted blurred vision, nor was dryness of the mouth recorded.

When the dose wos increased to 2 mg., the blurred vision was noted by one of 22 subjects.

Only 2 of 22 subjects noted dry mouth and blurring of vision even when doses of 5 mg. were given.



Conclusion: Typicot otropine-like side effects are not expected when Trest is used 1 mg. t.i.d. These effects are uncommon when the dosoge is increased to 2 mg t.i.d.

"A highly satisfactory symptomatic response was obtained in 20 of the 23 patients who took 1 mg. of methixene hydrochloride (Trest) by mouth three times daily. No side effects occurred at this dosage during administration of the medication itself.

"Methixene hydrochloride (Trest) provides highly gratifying symptomatic relief in a variety of conditions associated with gastrointestinal motility without producing the usual atropine-like side effects and without requiring concurrent barbiturate sedation."

—Martins, J. K.:
Clin. Med. 72:1313-1316
(Aug.) 1965

". . . in a series of 47 patients suffering from various types of functional bowel distress. The superiority of this drug (Trest) in dosage of 1.0 mg. three times daily by mouth over the placebo is statistically significant. At that dosage level, side effects were not observed."

—Hufford, A. R.:
Clin. Med. 72:1151-1155
(July) 1965.

An antispasmodic that antagonizes.

new from Ames
5 basic uro-analytical facts in 30 seconds



Labstix®

BRAND REAGENT STRIPS

...broadest urine screening possible from a single reagent strip

Urine test results with LABSTIX Reagent Strips can represent significant guides to differential diagnosis or therapy in many conditions. An unexpected "positive" may enable you to detect hidden pathology—long before more recognizable symptoms become evident. Negative results, which permit you to rule out abnormalities in a broad clinical range, can serve as baseline values for reference in future examinations. The 5 colorimetric test areas encompassed on LABSTIX Reagent Strips are:

pH—values are read numerically in the essential range of pH 5 to pH 9.

Protein—results are read either in the "plus" system or in mg. % in amounts approximating "trace," 30, 100, 300, and over 1000 mg. %.

Glucose—provides a "Yes-or-No" answer for urine "sugar spill."

Ketones—detects ketone bodies in urine—**both** acetoacetic acid and acetone. Reacts with as little as 5 to 10 mg. % of acetoacetic acid.

Occult Blood—specific test for intact red cells, hemoglobin or myoglobin. Results are read as negative, small, moderate or large amounts.

Now a Clear Reagent Strip of Firm Construction

...facilitates handling during testing procedure. Excellent color contrast made possible by the clear plastic strip, together with the clearly defined color charts provided, permits precise, reproducible colorimetric readings in all 5 test areas. A more definitive interpretation of uro-analytical facts is made possible.

Available: LABSTIX Reagent Strips, bottles of 100 (color charts are supplied with each bottle).

Ames Company, Inc., Elkhart, Indiana

AMES

08165

LIBRIUM®
(chlordiazepoxide HCl)

ROCHE

Library
New York Academy of Medicine
2 East 103rd St
New York N Y J 12-67
10029

WHEN ANXIETY IS A SIGNIFICANT COMPONENT OF THE CLINICAL PROFILE

Before prescribing, please consult complete product information, a summary of which follows:

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Warn against hazardous occupations requiring complete mental alertness. Use caution in administering to addiction-prone patients or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of child-bearing age requires that its potential benefits be weighed against its possible hazards.

Precautions: In elderly and debilitated and in children over five, limit dosage to smallest effective amount, increasing gradually as needed and tolerated. In general, concomitant use with other psychotropics is not recommended. Paradoxical reactions have been reported in psychiatric patients and hyperactive aggressive children. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically. Observe usual precautions in presence of impaired renal or hepatic function, impending depression and suicidal tendencies.

Adverse reactions: Drowsiness, ataxia and confusion may occur, especially in elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. Syncope occurs rarely. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis, jaundice and hepatic dysfunction) may develop occasionally, making periodic blood counts and liver-function tests advisable during protracted therapy. Individual maintenance dosages should be determined.

Dosage: Oral—Adults: Mild to moderate anxiety and tension, 5 or 10 mg t.i.d. or q.i.d.; severe states, 20 or 25 mg t.i.d. or q.i.d. Geriatric patients: 5 mg b.i.d. to q.i.d.

Supplied: Capsules, 5 mg, 10 mg and 25 mg—bottles of 50.

Roche Laboratories • Division of Hoffmann - La Roche Inc • Nutley, N.J. 07110

FEBRUARY, 1967
Volume 54
Number 2

The JOURNAL of the Florida Medical Association

In This Issue

Breast Cancer
Chest Injuries
Angina Pectoris
Endocardial Pacing
Child Heart Murmur
Carcinoma of the Vulva
Patient, a Family Symptom
Vaginal Smear Interpretation

OFFICIAL PUBLICATION OF THE FLORIDA MEDICAL ASSOCIATION

PLAN TO ATTEND
93rd Annual Meeting
May 11-14, 1967
Americana Hotel
Bal Harbour

when it counts...
Chloromycetin®
(chloramphenicol)

PARKE-DAVIS

PARKE, DAVIS & COMPANY, Detroit, Michigan 48232

Complete information for usage
available to physicians upon request.

01366



BSP® DISPOSABLE UNIT

BSP® DISPOSABLE UNIT

BSP® DISPOSABLE UNIT

BSP® DISPOSABLE UNIT

BSP® DISPOSABLE UNIT

BSP® DISPOSABLE UNIT

BSP® DISPOSABLE UNIT

BSP® DISPOSABLE UNIT

BSP® DISPOSABLE UNIT

A RELIABLE, PROVEN PRODUCT . . .

The BSP test, introduced in 1925, remains one of the most sensitive laboratory procedures available for determining hepatic function.

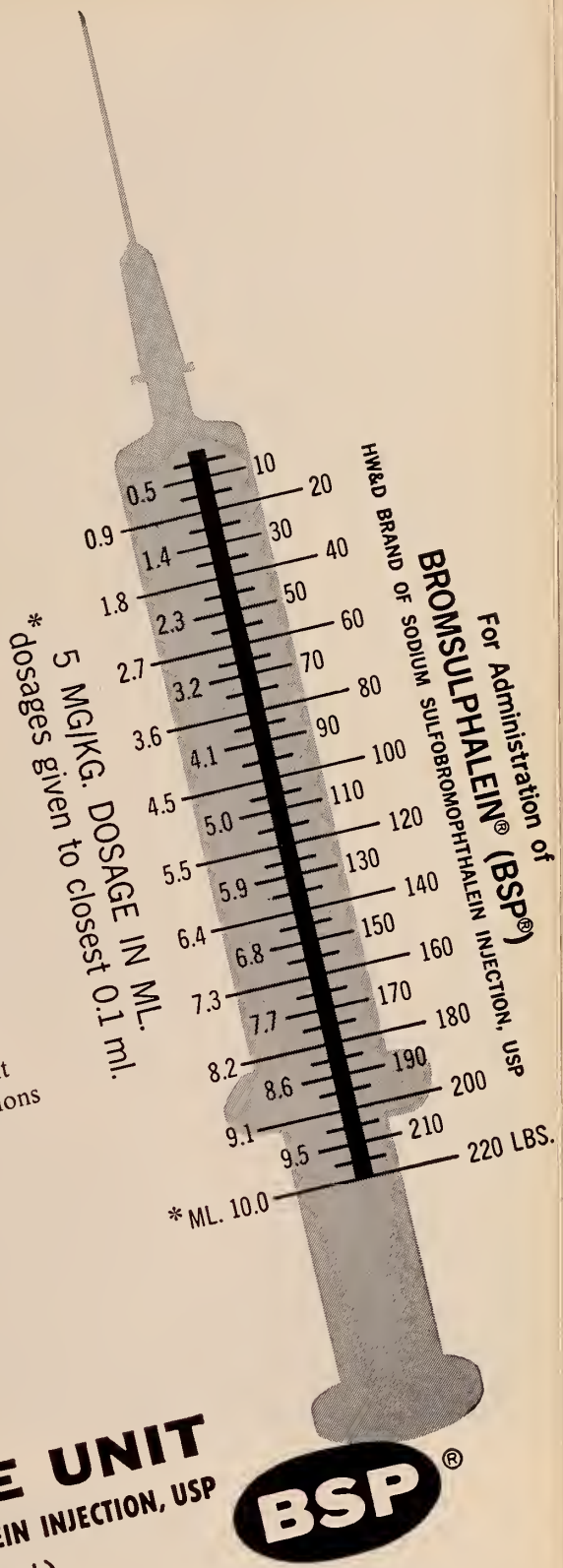
A STERILE, CONVENIENT PUT-UP . . .

Each BSP Disposable Unit contains: a sterile, glass, disposable syringe with the 5 mg./kg. BSP dosage schedule imprinted on the barrel, a sterile needle, alcohol swab and a 7.5 ml. or 10 ml. size ampule of Bromsulphalein.

The BSP unit is designed for maximum patient protection. The precalibrated syringe makes weight calculations unnecessary and provides for proper dosage regardless of patient-weight.

ECONOMICALLY PACKAGED . . .

Prepared for economic unit dispensing, this completely disposable put-up affords a savings in time and labor—the most costly commodities.



BSP® DISPOSABLE UNIT

HW&D BRAND OF SODIUM SULFOBROMOPHTHALEIN INJECTION, USP

(50 mg. per ml.)

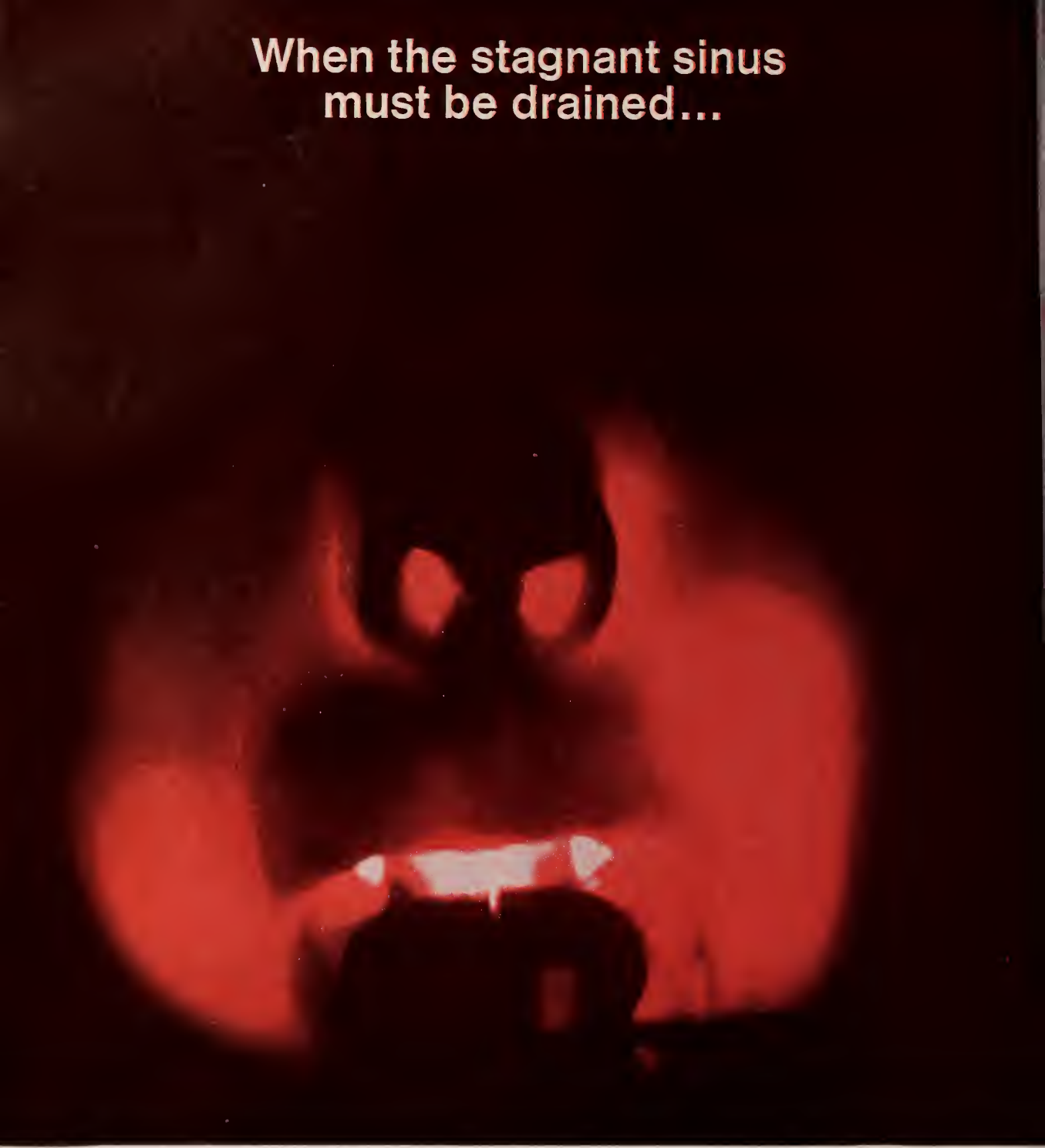
HYNSON, WESTCOTT & DUNNING, INC.

BALTIMORE, MARYLAND 21201

(BSP02)

HW&D

When the stagnant sinus must be drained...



Transillumination of the sinuses – diffuse shadow on right side of face indicates unilateral maxillary sinusitis.

In the common cold, Neo-Synephrine is unsurpassed for reducing nasal turgescence. It stops the stuffy feeling at once. It opens sinus ostia to re-establish drainage and lessen the chance of sinusitis. With Neo-Synephrine, in the concentrations most commonly used, decongestion lasts long enough for extended breathing comfort, without endangering delicate respiratory tissue. Systemic side effects are virtually unknown. There is little rebound tendency.

Neo-Synephrine® HCl

Brand of phenylephrine hydrochloride

is available in a variety of forms, for all ages:

- 1/8% solution for infants
- 1/4% solution for children and adults
- 1/4% pediatric nasal spray for children
- 1/2% solution for adults
- 1/2% nasal spray for adults
- 1/2% jelly for children and adults
- 1% solution for adults (resistant cases)

Also NTZ® Solution or Spray
Antihistamine-decongestant

Winthrop Laboratories, New York, N.Y. 10016 Winthrop

(1025M)

The JOURNAL
of the Florida Medical Association

Volume 54, Number 2, February 1967

THIS ISSUE

Scientific Articles

Management of Inoperable Breast Cancer by Endocrine Methods, Eugene T. Davidson, M.D. ... 111
Prenylamine Lactate in the Treatment of Angina Pectoris, Martin S. Belle, M.D. ... 116
Emergency Treatment of Chest Injuries, Thomas B. Ferguson, M.D. ... 120
The Patient, A Symptom of the Family, Alberto De La Torre, M.D. ... 125
Permanent Pervenous Endocardial Pacing in the Treatment of Complete Heart Block, Sol Center, M.D., Philip Samet, M.D., and Cesar Castillo, M.D. ... 128
Hormone Interpretation of Vaginal Smears, Daniel O. Hammond, M.D. ... 132
The School-Age Child With a Heart Murmur, Ralph Slonim, M.D. and Nora B. Oldham, M.D. ... 135
Carcinoma of the Vulva, Donald Menzies, M.D. and Harry Prystowsky, M.D. ... 138

Editorials

Good Old Doc Is Not Dead, Robert E. Zellner, M.D. ... 143
Treatment of Angina Pectoris, Franz Stewart, M.D. ... 144
The Hillsborough County Demonstration Project, H. Phillip Hampton, M.D. ... 145

Departments

President's Page ... 140
Others Are Saying ... 147
News ... 151
The Medical Detective ... 160
Public Health Topics ... 161
Meetings ... 163
Government News ... 164
Association News ... 171
Classified ... 184

Miscellaneous

Florida Medical Association Officers and Council Chairmen ... 186
Information for Authors ... 186
Index to Advertisers ... 183

THAD MOSELEY, M.D.
Editor

Assistant Editors

JOHN M. PACKARD, M.D.
OSCAR W. FREEMAN, M.D.

Assistant Editor from the Board of Governors
JACK Q. CLEVELAND, M.D.

W. HAROLD PARHAM
Managing Editor

EUGENE L. NIXON
Associate Managing Editor

LOUISE RADER
Assistant Managing Editor

EDITH B. HILL
Editorial Consultant

Published monthly at Jacksonville, Florida. Price $7.00 a year: single numbers, 70 cents. Address Journal of Florida Medical Association, P.O. Box 2411, 735 Riverside Ave., Jacksonville, Fla. 32203. Telephone (904) 356-1571. Accepted for mailing at special rate of postage provided for in Section 1103, Act of Congress of October 3, 1917; authorized October 16, 1918. Entered as second class matter under Act of Congress of March 3, 1879, at the post office at Jacksonville, Florida, October 23, 1924.

Owned and published by the Florida Medical Association, Inc. The Journal is not responsible for the opinions and statements of its contributors.



now Novestrol™ (ethinyl estradiol U.S.P.)

estrogen replacement therapy

for the menopausal syndrome and female hypogonadism. Novestrol, a pure synthetic estrogen derivative, is related to estradiol which is the primary hormone of the ovarian follicle. It is effective orally and has all the actions of naturally occurring estrogen.

Ethinyl estradiol is the most active estrogen known. In addition to its high potency, Novestrol offers patients the advantages of minimal side effects, low cost, and convenience. Usually only a single daily dose is necessary.

Description: Each green, sugar-coated tablet contains 0.02 mg. of ethinyl estradiol U.S.P., a pure synthetic estrogen derivative, the most active estrogen known.
Indications: Menopausal syndrome and female hypogonadism.
Contraindications: Patients with tumors which estrogen might stimulate.
Precautions: Examine patients for mammary or reproductive system neoplasm. Give with great care, if at all, to patients who have precancerous lesions or family history of cancer.

Prolonged administration or high doses may produce anterior pituitary suppression. Endometrial bleeding can usually be avoided by cyclic administration at lowest effective dose and addition of progesterone during last half of cycle. Endometrial hyperplasia may develop in spite of cyclic therapy.
Side Effects: Occasional gastrointestinal disturbances, headache and vertigo. These usually disappear following proper dosage reduction.
Dosage and Administration: Determine minimum effective dose and maintain only as long as necessary.

Menopausal Syndrome: One or two tablets (0.02 or 0.04 mg.) daily. Omit therapy one week each month. Repeat cyclic therapy until satisfactory response is obtained. Advise patient that vaginal bleeding may occur.

Female Hypogonadism: Two tablets (0.04 mg.) one to three times daily for two weeks followed by progesterone for two weeks. Continue cyclic therapy for 3-6 months; then withdraw therapy to determine if normal cycle will be instituted. Additional cyclic therapy may be required in some patients.

WILLIAM H. RORER, INC. Fort Washington, Pa.

DEPRESSION



NORPRAMIN®
(desipramine hydrochloride)

ANTIDEPRESSANT FOR RAPID IMPROVEMENT

At the recommended dosage level —initially, 150 mg. per day— gratifying remission of the signs and symptoms of depression typically begins in 2-5 days. Its specificity for depression, rapidity of action and usually mild side effects are significant reasons for prescribing NORPRAMIN (desipramine hydrochloride) in depression of any type . . . any degree of severity.

A few patients, sensitive to central nervous system stimulants may become restless as depression is lifted—in such cases dosage may be reduced or a tranquilizer added.

IN BRIEF:

INDICATIONS: In depression of any kind —neurotic and psychotic depressive reactions; manic-depressive or involutional psychotic reactions.

CONTRAINDICATIONS: Glaucoma, urethral or ureteral spasm, recent myocardial infarction, severe coronary heart disease, epilepsy. Should not be given within two weeks of treatment with a monoamine oxidase inhibitor.

RELATIVE CONTRAINDICATIONS: (1) Patients with a history of paroxysmal tachycardia. (2) Patients receiving concomitant therapy with thyroid, anticholinergics or sympathomimetics may experience potentiation of effects of these drugs. (3) Safety in pregnancy has not been established.

PRECAUTIONS: (1) Outpatient use of desipramine hydrochloride should not be substituted for hospitalization when risk of suicide or homicide is considered grave. (2) If serious adverse effects occur, reduce dosage or alter treatment. (3) In patients with manic-depressive illness a hypomanic state may be induced. (4) Discontinue drug as soon as possible prior to elective surgery.

ADVERSE EFFECTS: Side effects, usually mild, may include: dry mouth, constipation, dizziness, palpitation, delayed urination, "bad taste," sensory illusion, tinnitus, anxiety, agitation and stimulation, insomnia, sweating, drowsiness, headache, orthostatic hypotension, flushing, nausea, cramps, weakness, blurred vision and mydriasis, rash, tremor, allergy, agranulocytosis, altered liver function, ataxia, and extrapyramidal signs.

DOSAGE: Optimal results are obtained at a dosage of 50 mg., t.i.d. (150 mg./day). **SUPPLIED:** NORPRAMIN (desipramine hydrochloride) tablets of 25 mg.; bottles of 50, 500 and 1000; and tablets of 50 mg., in bottles of 30, 250 and 1000.

LAKESIDE

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201

winter 1966

DORSEY Season

A journal within a journal published quarterly in the interests of better medicine by Dorsey Laboratories, a division of The Wander Company, Lincoln, Nebraska. Address communications to Raymond C. Pogge, M.D., Director of Medicine.



this issue: the nose as a shock organ

the nose as a shock organ

by Charles J. Shagoury, M.D., Chelmsford, Massachusetts



"Is it a cold, hay fever, or has he been reprimanded by his boss?" Occasionally, you will ask yourself this question when confronted by a patient with abrupt onset of rhinorrhea, nasal obstruction, and sneezing. Usually the history will elucidate the problem, but examination of the nose will often provide valuable clues to the correct diagnosis.

The nose is a shock organ in a double sense. First, it is in the nose that the confrontation takes place with the surrounding atmosphere. For twenty-four hours a day, the nose must meet the varying challenges of the inspired air, containing perhaps noxious chemicals, dust, dirt, bacteria, viruses, fungi, and industrial pollutants of all kinds, and render it clean, virtually sterile, and fit for the sensitive alveoli of the lungs. Whatever the temperature or humidity of the atmosphere, the nose must transmit it to the lungs at approximately 98°F, and with a humidity of approximately 40%.[1]

Second, in particularly susceptible patients, the nose acts as a shock organ in a manner totally unrelated to its normal function. Persons with hay fever respond to ordinarily harmless materials by extreme nasal congestion, with marked rhinorrhea and violent spasms of sneezing. In some patients, exposure to threatening or disagreeable agents, or situations involving mental conflict may result in a reaction which is exclusively nasal, with swelling of the turbinates, and marked hypersecretion.[2]

Nasal symptoms usually result when the nose seeks to perform its function of getting rid of noxious and dangerous elements in the atmosphere, and prevent their admission to the trachea and lungs. Small particles are removed by the mucous coating which blankets the nasal passages. This mucous blanket contains a bacteriostatic agent, lysozyme, which destroys most air-borne bacteria.[3] The mucinous content renders the surface sticky, causing dusts and small particles to adhere. It has been postulated that this process is rendered more effective through adsorption because of a surface electrical charge on the nasal mucosa.[4] The cilia then sweep the particulate matter to the pharynx. The nose can prevent entrance into the lungs of particles as small as three microns in diameter, but smaller particles elude the nasal barrier. Most bacteria causing respiratory infections are one to three microns in diameter, but since they usually are inhaled in clumps, they are efficiently removed as a rule. Viruses, which are of the order of 1/1000 of this size, are less efficiently dealt with, unless they occur in very large aggregates.[5]

The nose will react in a more or less similar manner, whatever the nature of the offending agent, whether it be an irritant chemical, virus, pollen, or distasteful emotional situation. In acute coryza, the most characteristic sign is a profuse watery discharge. The volume of secretion may rise from practically nothing to nearly 60cc in twenty-four hours.[6] The mucous membrane is reddened and engorged, while the turbinates are markedly swollen. After the first day or two, the secretion becomes thicker, yellowish, and more difficult to expel. The surface cells are largely destroyed, contributing to the copious discharge, which now also contains numerous inflammatory cells which have migrated to the area. Gradually, over a period of a few days, or a week, the flood abates, the swelling and redness subside, and the nasal epithelium resumes a healthy appearance.

Repeated attacks of rhinitis, particularly if there is an underlying element of obstruction, may result in chronic rhinitis. The mucous membrane is constantly swollen and reddened. Sticky, mucopurulent secretions are a continuous feature, and the glandular elements are hypertrophied. Commonly, the mucosal surface takes on an irregular, rounded "mulberry" appearance, and nasal passages are occluded by the swollen turbinates and redundant mucosa.

While all of us are susceptible to colds, the victim of hay fever, or allergic rhinitis, displays a marked nasal reaction to materials in the air which leave his associates unaffected. In such a patient, the nasal mucosa has become an allergic "shock" organ. Contact with the nasal allergen causes local release of histamine, with vasodilatation, increased vascular permeability, and severe nasal congestion, similar to the "wheal" and "flare" reactions in the skin, when the epidermis is the allergic shock organ. While we eagerly await the coming of spring, the hay fever sufferer dreads the blooming season, whose invisible pollens are poisons to his sensitive nose. His neighbor's cat or dog may provoke paroxysms of uncontrollable sneezing. In some cases a specific allergen is not identified, but the triad of rhinorrhea, nasal obstruction, and sneezing is present.[7] The nose in these cases shows a pale, boggy, edematous mucosa, with a thin mucoid secretion. The mucous membrane shows extreme retractility to 1% cocaine or ephedrine. If the patient has medicated himself prior to examination, the nasal passages may appear abnormally patent, or show exaggerated congestion due to rebound reaction. The secretion may show a large number of eosinophils particularly after an attack of sneezing or rhinorrhea. Touching the mucosal surface, especially of the inferior turbinate, leaves an indentation, showing that the swelling is due to stasis and edema, rather than actual hyperplasia of the mucous membrane as in chronic hypertrophic rhinitis. Though the pale swollen mucosa is the hallmark of allergic rhinitis, as usually seen by the physician, exposure of allergic subjects to their known allergens results in a brief hyperemic phase, followed by pallor and edema.[8]

In the later stages of allergic rhinitis, the chronic edema of the mucous membrane results in the formation of polyps, clusters of grape-like masses hanging from the roof of the nose, with a pale glistening surface, contributing significantly to the sense of nasal obstruction and oppression.

A large group of patients show symptoms of nasal congestion when confronted by adverse life situations.[9] In these unfortunate persons, anxiety, frustration, and resentment are often accompanied by a runny nose and nasal obstruction. Lacrimation adds to the nasal stuffiness. This autonomic response, mediated by the parasympathetic nervous system, may be part of a general parasympathetic reaction, or may possibly represent in part, a symbolic effort to wash out and crowd out the offending situation.

Nasal congestion may also occur in some patients at times of sexual stimulation, and in women during menstruation and pregnancy, even to the point of epistaxis.[10] The relationship is obscure; castration results in atrophy of the nasal glands, and their action is inhibited by the hormones of the hypophysis and the thyroid.[11] The nose may be the shock organ in drug therapy. The nose may also bear the brunt of industrial stress, in those who work in a hot dry atmosphere, or those exposed to acid fumes, or irritating dusts. As the air in our cities is increasingly polluted by exhaust fumes, and industrial irritants, whole urban populations may suffer from chronic nasal and respiratory symptoms.

Of course, nasal reactions are not just infectious, or allergic, or emotional. Particularly in the chronic sufferers, there is an interdependence of all three. Death of a relative, or other psychic shock can pre-

(concluded on following page)

it's a comforting thing to know



For postnasal drip, clogged ears and stuffed and runny noses

Triaminic® timed-release tablets

Each timed-release tablet contains:

Phenylpropanolamine hydrochloride	50 mg.
Pheniramine maleate	25 mg.
Pyrilamine maleate	25 mg.

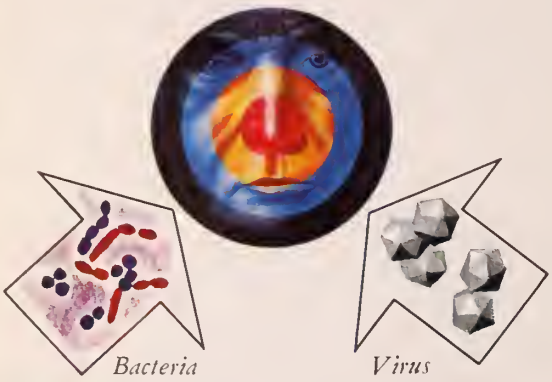
keep patients comfortable 'round the clock. 24-hour decongestion on just a single tablet dosed morning, mid-afternoon and at bedtime. Patients regain senses and can breathe, smell and taste again.

Triaminic. Isn't that a comforting thing to know?

Side effects: Occasional drowsiness, blurred vision, cardiac palpitations, flushing, dizziness, nervousness or gastrointestinal upsets. Precautions: The patient should be advised not to drive a car or operate dangerous machinery if drowsiness occurs. Use with caution in patients with hypertension, heart disease, diabetes or thyrotoxicosis.

(Advertisement)

cipitate an attack of rhinorrhea in hay fever sufferers.[12] Others develop attacks of vasomotor rhinitis following change in temperature, chilling, or exposure to the sun, or simply warm bedclothes.

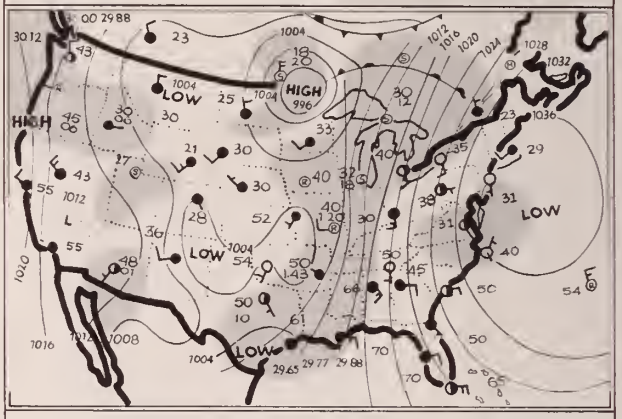


The complex interplay of allergy and infection is largely unclear. Allergy to the viruses and bacteria which cause infection has been postulated, but is difficult to demonstrate. The swollen obstructed allergic nose is more susceptible to infection. At the same time, infection often precedes or precipitates an allergic attack. Exposure of a susceptible patient to an allergen can activate latent virus organisms leading to infection.[13] This "jolt" reaction represents a summation of an allergen and a virus leading to symptoms in the nose as a shock organ, which neither could have produced alone. In childhood, repeated attacks of bronchitis and colds may be inflammatory reactions to an allergen, or precipitated by exposure to an allergen. These children may later develop typical allergic rhinitis. On the other hand, children with typical allergic histories, eczema, asthma, and allergic familial backgrounds, may later develop typical infectious rhinopathies. Skin tests in such patients are usually positive.

Nasal reactions are part of the systemic response of the patient to an unwelcome stimulus. In cases of respiratory infection and exposure to atmospheric irritants, the reactions are useful, and to some extent desirable. They are usually self-limited, disappearing within a few days, or upon removal of the provoking agent. Here the distressing symptoms can be ameliorated with appropriate decongestant agents, or, in the case of severe or complicated respiratory infections, antibiotics may be given, with reasonable confidence of a cure. On the other hand, when nasal reactions are the peculiar response of an individual to an allergen, or to an undesirable situation, they serve no useful purpose. The nose here is a shock organ in a stressful situation, but can furnish no response of value. It merely causes the patient symptoms which add to his problems. In these cases, symptomatic treatment is of great benefit, but often the underlying faulty pattern of response cannot be altered. Such a patient may literally be considered to be paying his way in life "through the nose."

References 1. Maures, E. R., Mendez, F. C., Jr., and Hilsinger, R. C.: Importance of the Nose in Filtering and Humidifying Inspired Air. Ohio State Med. J. 61:41-42. 2. Holmes, T.,Goodell H., Wolf, S., and Wolff, H. G.: The Nose. Springfield, Ill. 1950 Charles C. Thomas p. 10 ff. 3. Boies, L. H. R.: Fundamentals of Otolaryngology. Phila. W. B. Saunders Co. 1954 p. 160. 4. Proetz, A. W.: Applied Physiology of the Nose. St. Louis 1941 Zimmerman-Petty Co. p. 6. 5. Spikard, A.: The Common Cold, A Survey. Disease of the Chest 48:545-49. Nov. 1965. 6. Ibid. 7. Bourdial, J.:Role of Allergy in Upper Respiratory Tract Infection. Europa Med. Paris 4:75-80 1965. 8. Holmes, et al. The Nose p. 22. 9. Ibid. p. 320. 10. Proetz, A. W. op. cit. p. 321. 11. Ibid. p. 320. 12. Rees, Linford J.: Physiogenic and Psychogenic Factors in Vasomotor Rhinitis. J. Psychosomatic Research 8:101 Sept. 1964. 13. Horesh, A. J.: Allergy and Infection. An Allergy 23:621-35 Dec. 1965.

Weather Forecast Throughout the Nation



RAIN TURNING TO SNOW, INCREASING WINDS AND DROPPING TEMPERATURES FOLLOWED BY COUGH, CONGESTION AND PAIN

Tussagesic® provides up to 24-hour coverage of the tough cold with a single timed-release tablet dosed morning, midafternoon and at bedtime. Coughs are broken up, runny and stuffed noses are cleared and pain is relieved.

Each Tussagesic® timed-release tablet contains:

Triaminic® (phenylpropanolamine hydrochloride 25 mg.; pheniramine maleate 12.5 mg.; pyrilamine maleate 12.5 mg.)	50 mg.
Dextromethorphan hydrobromide	30 mg.
Terpin hydrate	180 mg.
Acetaminophen	325 mg.

Side effects: Occasional drowsiness, blurred vision, cardiac palpitations, flushing, dizziness, nervousness or gastrointestinal upsets. Precautions: Patient should not drive a car or operate dangerous machinery if drowsiness occurs. Except under professional care, do not give to patients under 12 yrs. or those who have persistent cough, high fever, heart or thyroid disease, hypertension or diabetes or use for more than 10 days.

(Advertisement)

DIURESIS



MERCUHYDRIN®
(meralluride injection)

Twenty years ago the publication of "A System for the Routine Treatment of the Failing Heart"[1] established a schedule of diuretic therapy as a primary factor in the treatment of acute congestive failure. With emphasis upon daily injections of Mercuhydrin (meralluride injection) until dry weight was obtained, Gold, et al. achieved a 40% increase in improvement, in ⅓ the time, over other methods then current. Today, most medical texts continue to recommend parenteral mercurials in acute congestive failure when prompt diuresis is indicated.

Recently Modell[2] has stated: "The mercurial diuretics are the injectable diuretics of choice since they are the most potent as well as the most dependable. Their toxicity is not an important consideration either by comparison with other potent diuretics or in relation to the seriousness of the conditions in which they provide such excellent relief."

LAKESIDE

IN BRIEF

Mercuhydrin is indicated in edema of cardiac or hepatic origin and in the nephrotic syndrome; it is contraindicated in acute nephritis and in anuric or oliguric states. *The usual adult dose is one to two cc. daily or every other day until "dry weight" is obtained.* Sensitivity is rare but small initial doses are advised to minimize potential reactions; vertigo, fever, and rash have occurred. Overdosage may produce electrolyte depletion, muscle cramps, and G.I. reactions. Supplied: 1 cc. and 2 cc. ampuls in boxes of 12, 25 and 100; 10 cc. rubber capped, multiple-dose vials (intramuscular or subcutaneous use only) in boxes of 6 and 100.

1. Gold, Harry, *et al.: A System for the Routine Treatment of the Failing Heart,* The American Journal of Medicine, Vol. III, No. 6:665-692 (Dec.) 1956.

2. Modell, Walter: *Drugs of Choice 1966-1967,* p. 97, 1966.

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201

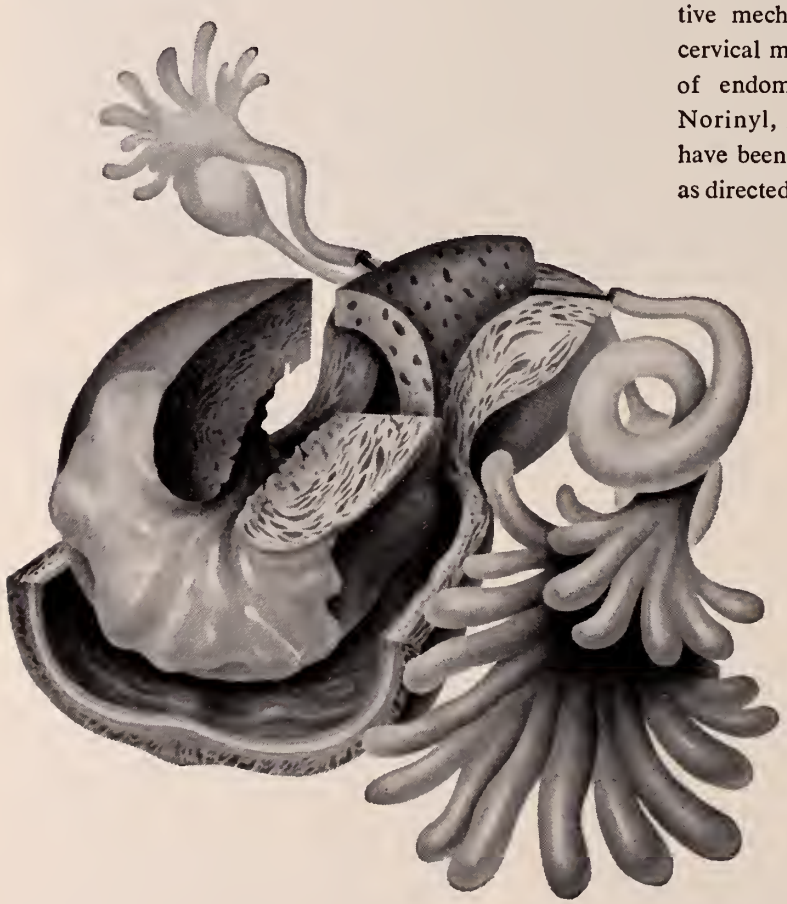
Norinyl® tablets
(norethindrone 2 mg. c mestranol 0.1 mg.)

for multiple contraceptive action that has produced a record of unexcelled effectiveness

inhibition of ovulation by means of 2 time-proved hormonal agents

production of a cervical mucus hostile to sperm motility and vitality

creation of an endometrium unreceptive to egg implantation



no unplanned pregnancies

Norinyl provides multiple action for maximum assurance of success. It does not depend on ovulation inhibition alone for contraceptive effectiveness. The mechanism of action of combined hormonal therapy results in ovulation inhibition reinforced by other protective mechanisms, including a hostile cervical mucus[1-13] and an acceleration of endometrial changes.[1-3,7-16] With Norinyl, no unplanned pregnancies have been reported to date when used as directed.

plus important supportive benefits that help her through those critical early months of oral contraception

low incidence of side effects

Low incidence of BTB and spotting, nausea and amenorrhea tends to minimize side effect problems and increases patient cooperation.

no confusion about dosage

An unbreakable "confusionproof" package makes it easy to adhere to prescribed dosage schedule: individually sealed tablets numbered from 1 through 20 *plus* monthly calendar record enables patient to double-check dosage intake by day and corresponding tablet number.



Contraindications: Thrombophlebitis or pulmonary embolism (current or past). Existing evidence does not support a causal relationship between use of Norinyl and development of thromboembolism. While a study which was conducted does not resolve definitively the possible etiologic relationship between progestational agents and intravascular clotting, it tends to confirm the findings of the Ad Hoc Advisory Committee appointed by the Food and Drug Administration to review this possibility. Cardiac, renal or hepatic dysfunction. Carcinoma of the breast or genital tract. Patients with a history of psychic depression should be carefully studied and the drug discontinued if depression recurs to marked degree. Patients with a history of cerebral vascular accident.

Warning: Discontinue medication pending examination if there is sudden partial or complete loss of vision, or if there is a sudden onset of proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn.

Precautions: By May 1963, experience with norethindrone 2 mg.–mestranol 0.1 mg. had extended over 24 months. Through miscalculation, omission or error in taking the recommended dosage of Norinyl, pregnancy may result. If regular menses fail to appear and treatment schedule has not been adhered to, or if patient misses two menstrual periods, possibility of pregnancy should be resolved before resuming Norinyl. If pregnancy is established, Norinyl should be discontinued during period of gestation since virilization of the female fetus has been reported with oral use of progestational agents or estrogen. When lactation is desired, withhold Norinyl until nursing needs are established. Existing uterine fibroids may increase in size. In metabolic or endocrine disorders, careful clinical preevaluation is indicated. A few patients without evidence of hyperthyroidism had elevated serum protein-bound iodine levels, which in the light of present knowledge, does not necessarily imply hyperthyroidism. Protein-bound iodine increased following estrogen administration. Bromsulphalein retention has occurred in up to 25% of patients without evidence of hepatic dysfunction. Studies from 24-hour urine collections have shown an increase in aldosterone and 17-ketosteroids and decrease in 17-hydroxycorticoid levels. Thus, Norinyl should be discontinued prior to and during thyroid, liver or adrenal function tests. Because progestational agents may cause fluid retention, conditions such as epilepsy, migraine and asthma require careful observation. Thus far no deleterious effect on pituitary, ovarian or adrenal function has been noted; however, long-range possible effect on these and other organs must await more prolonged observation. Norinyl should be used with caution in patients with bone, renal or any disease involving calcium or phosphorus metabolism.

Side Effects: Intermenstrual bleeding; amenorrhea; symptoms resembling early pregnancy, such as nausea, breast engorgement or enlargement, chloasma and minor degree of fluid retention (if these should occur and patient has not strictly adhered to medication plan, she should be tested for pregnancy); weight gain; subjective complaints such as headache, dizziness, nervousness, irritability; in a few patients libido was increased. In a total of 3,090 patients, 2.2% discontinued medication because of nausea.

NOTE: See sections on contraindications and precautions for possible side effects on other organ systems.

Dosage and Administration: One Norinyl tablet orally for 20 days, commencing on day 5 through and including day 24 of the menstrual cycle. (Day 1 is the first day of menstrual bleeding.)

Availability: Dispensers of 20 and 60 tablets; bottles of 100.

References: 1. Council on Drugs. JAMA 187:664 (Feb. 29) 1964. 2. Bryans, F. E.: Canad Med Ass J 92:287 (Feb. 6) 1965. 3. Goldzieher, J. W.: Med Clin N Amer 48:529 (Mar.) 1964. 4. Cohen, M. R.: Paper presented at Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965. Reported in Med Sci 16:26 (Nov.) 1965. 5. Hammond, D. O.: Ibid. 6. Rice-Wray, E., Goldzieher, J. W., and Aranda-Rosell, A.: Fertil Steril 14:402 (Jul.-Aug.) 1963. 7. Goldzieher, J. W., Moses, L. E., and Ellis, L. T.: JAMA 180:359 (May 5) 1962. 8. Kempers, R. D.: GP 29:88 (Jan.) 1964. 9. Tyler, E. T.: JAMA 187:562 (Feb. 22) 1964. 10. Rudel, H. W., Martinez-Manautou, J., and Maqueo-Topete, M.: Fertil Steril 16:158 (Mar.-Apr.) 1965. 11. Flowers, C. E., Jr.: N Carolina Med J 25:139 (Apr.) 1964. 12. Goldzieher, J. W.: Appl Ther 6:503 (June) 1964. 13. The Control of Fertility. Report adopted by the Committee on Human Reproduction of the American Medical Association. JAMA 194:462 (Oct. 25) 1965. 14. Flowers, C. E., Jr.: JAMA 188:1115 (June 29) 1964. 15. Merritt, R. I.: Appl Ther 6:427 (May) 1964. 16. Newland, D. O.: Paper presented at Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965. Reported in Med Sci 16:26 (Nov.) 1965.

norethindrone—an original steroid from

SYNTEX

LABORATORIES INC., PALO ALTO, CALIF.

Norinyl® tablets

(norethindrone 2 mg. ĉ mestranol 0.1 mg.)

for multiple contraceptive action





Posed by professional model.

You can't set her free. But you can help her feel less anxious.

You know this woman.

She's anxious, tense, irritable. She's felt this way for months.

Beset by the seemingly insurmountable problems of raising a young family, and confined to the home most of the time, her symptoms reflect a sense of inadequacy and isolation. Your reassurance and guidance may have helped some, but not enough.

SERAX (oxazepam) cannot change her environment, of course. But it can help relieve anxiety, tension, agitation and irritability, thus strengthening her ability to cope with day-to-day problems. Eventually—as she regains confidence and composure—your counsel may be all the support she needs.

Indicated in anxiety, tension, agitation, irritability, and anxiety associated with depression.

May be used in a broad range of patients, generally with considerable dosage flexibility.

Contraindications: History of previous hypersensitivity to oxazepam. Oxazepam is not indicated in psychoses.

Precautions: Hypotensive reactions are rare, but use with caution where complications could ensue from a fall in blood pressure, especially in the elderly. One patient exhibiting drug dependency by taking a chronic overdose developed upon cessation questionable withdrawal symptoms. Carefully supervise dose and amounts prescribed, especially for patients prone to overdose; excessive prolonged use in susceptible patients (alcoholics, ex-addicts, etc.) may result in dependence or habituation. Reduce dosage gradually after prolonged excessive dosage to avoid possible epileptiform seizures. Caution patients against driving or operating machinery until absence of drowsiness or dizziness is ascertained. Warn patients of possible reduction in alcohol tolerance. Safety for use in pregnancy has not been established.

Not indicated in children under 6 years; absolute dosage for 6 to 12 year-olds not established.

Side Effects: Therapy-interrupting side effects are rare. Transient mild drowsiness is common initially; if persistent, reduce dosage. Dizziness, vertigo and headache have also occurred infrequently; syncope, rarely. Mild paradoxical reactions (excitement, stimulation of affect) are reported in psychiatric patients. Minor diffuse rashes (morbilliform, urticarial and maculopapular) are rare. Nausea, lethargy, edema, slurred speech, tremor and altered libido are rare and generally controllable by dosage reduction. Although rare, leukopenia and hepatic dysfunction including jaundice have been reported during therapy. Periodic blood counts and liver function tests are advised. Ataxia, reported rarely, does not appear related to dose or age.

These side reactions, noted with related compounds, are not yet reported: paradoxical excitation with severe rage reactions, hallucinations, menstrual irregularities, change in EEG pattern, blood dyscrasias (including agranulocytosis), blurred vision, diplopia, incontinence, stupor, disorientation, fever, euphoria and dysmetria.

Availability: Capsules of 10, 15 and 30 mg. oxazepam.

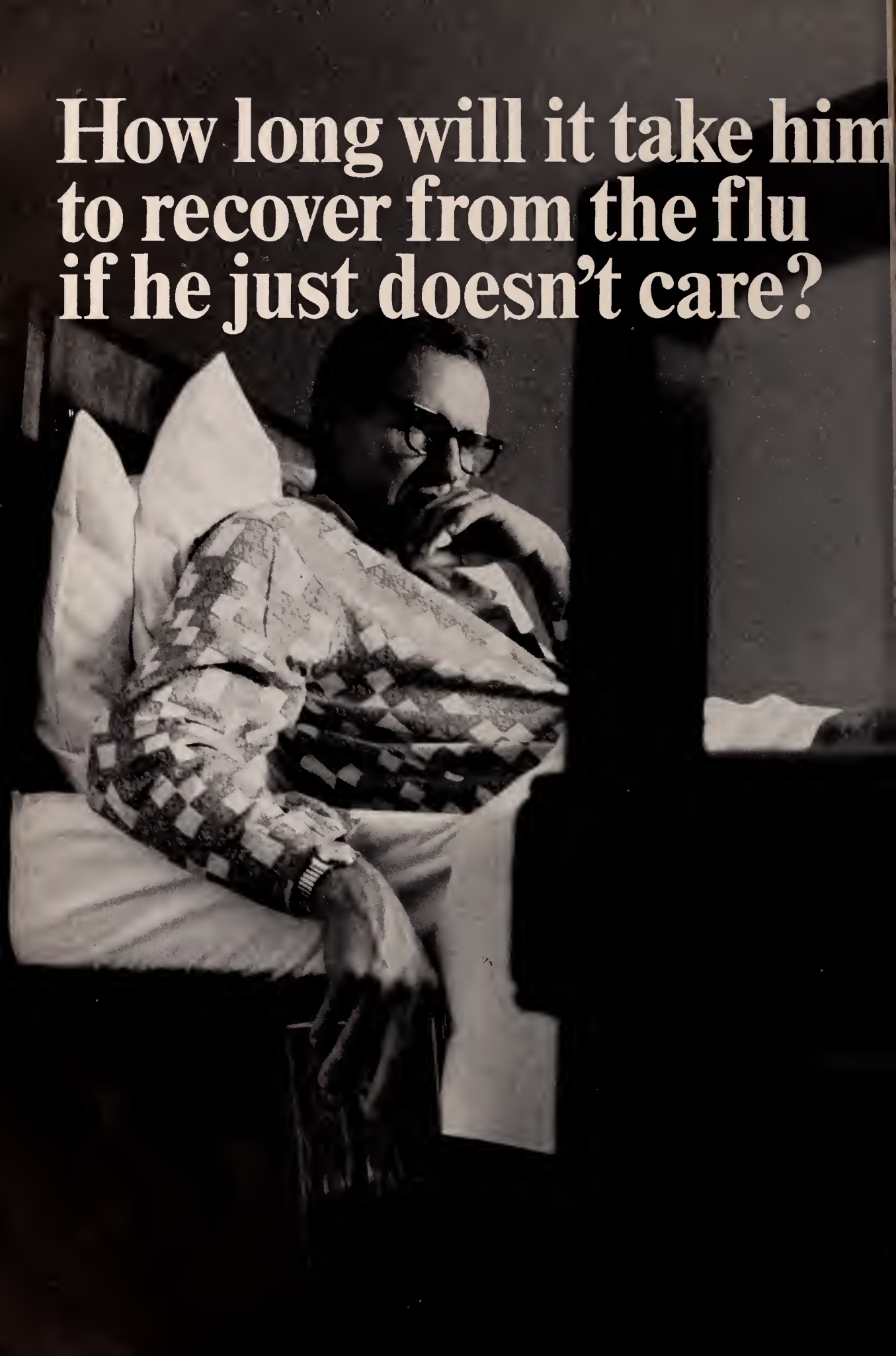
To help you relieve anxiety and tension

Serax®
(oxazepam)

Wyeth® SERVICE TO MEDICINE

Wyeth Laboratories
Philadelphia, Pa.

How long will it take him to recover from the flu if he just doesn't care?



Does he really care?
he alert, encouraged,
sitive and optimistic
out getting out of bed
d back to work soon?
Or is he giving in to
e depressing impact
confinement?
When functional fatigue
mplicates convalescence,
ertonic can help...

Pleasant-tasting Alertonic is pipradrol hydrochloride—an effective cerebral stimulant whose gentle analeptic action helps counteract the apathy and inertia that so often delay convalescence—together with an excellent vitamin and mineral formula, in a satisfying 15% alcohol vehicle.

Nothing fosters confidence and a sense of well-being better than your own personal warmth, understanding and encouragement together with Alertonic to help insure prompt response.

Adequate dosage is important: Prescribe Alertonic—one tablespoonful t.i.d., 30 minutes before meals...tastes best chilled.
And for your patient's sake, prescribe Alertonic in the convenient, economical one-pint bottle.

Alertonic®

Available Only On Prescription

Each 45 cc. (3 tablespoonfuls) contains: alcohol, 15%; pipradrol hydrochloride, 2 mg.; thiamine hydrochloride (vitamin B_1) (10 MDR*), 10 mg.; riboflavin (vitamin B_2) (4 MDR), 5 mg.; pyridoxine hydrochloride (vitamin B_6), 1 mg.; niacinamide (5 MDR), 50 mg.; choline,† 100 mg.; inositol,† 100 mg.; calcium glycerophosphate, 100 mg. (supplies 2% MDR for calcium and for phosphorus) and 1 mg. each of the following: cobalt (as chloride), manganese (as sulfate), magnesium (as acetate), zinc (as acetate), and molybdenum (as ammonium molybdate).

*Multiple of adult Minimum Daily Requirement supplied.
†The need for these substances in human nutrition has not been established.

Indications: 1. Functional fatigue such as that often associated with: a depressing life experience or stressful time of life; advancing years; convalescence; limited activity or confinement. 2. Poor appetite and vitamin-mineral deficiency as they occur in: patients having faulty eating habits; geriatric patients who are losing interest in food; patients convalescing from debilitating illness or surgery.

Contraindications: As with other drugs with CNS stimulating action, Alertonic is contraindicated in hyperactive, agitated or severely anxious patients and in chorea or obsessive compulsive states.

Side effects: Reports of overstimulation have been rare. Patients who are known to be unduly sensitive to the effects of stimulant drugs should be observed carefully in the initial stages of treatment.

Dosage: Adults, 1 tablespoonful; children (over 15 years old), 1 to 2 teaspoonfuls; children (4 to 15 years old), 1 teaspoonful. To be taken three times daily 30 minutes before meals.

Merrell

THE WM. S. MERRELL COMPANY
Division of Richardson-Merrell Inc.
Cincinnati, Ohio 45215

6-7907

New
low-cost tetracycline/antifungal therap

for broad-spectrum activity
plus specific antifungal prophylaxis
at significant patient savings

Whenever tetracycline is indicated in these candidates for Candic

1. diabetic patients



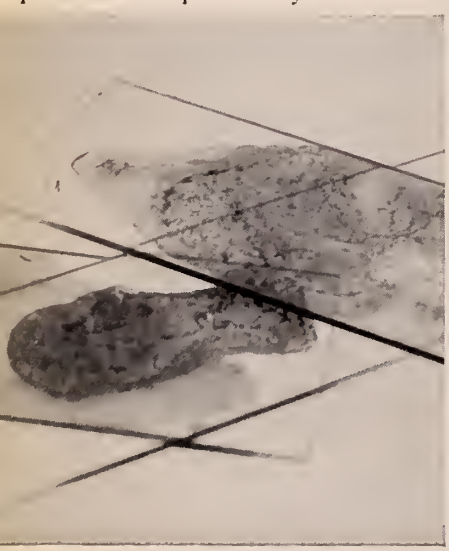
2. nonpregnant women with a history of recent or recurrent monilial vaginitis



3. elderly or debilitated patients



4. patients with a past history of moniliasis



5. patients on long-term tetracycline or corticosteroid therapy



BRISTOL THERAPEUTIC SUMMARY: For co
formation consult Official Package Circular. *In*
Infections of respiratory, gastrointestinal and ge
tracts and skin and soft tissues due to tetracyc
tive organisms, in patients with increased aus
to monilial infections. *Contraindications:* The d
traindicated in patients hypersensitive to its co
Warnings: Photodynamic reactions have been pr
tetracyclines. Natural and artificial sunlight
avoided during therapy. Stop treatment if skin
occurs. With renal impairment, systemic accum
hepatotoxicity may occur. In this situation, lo
should be used. Tooth staining and enamel hypo
be induced during tooth development (last tr
pregnancy, neonatal period and childhood). *Pr*
Bacterial superinfection may occur. Infants m
increased intracranial pressure with bulging fo
gonorrheal therapy, serologic tests for syphilis
conducted initially and monthly for 3 months
Reactions: Glossitis, stomatitis, nausea, diarr
lence, proctitis, vaginitis, dermatitis, and allergi
may occur. *Usual Adult Dosage:* 1 capsule *q.i.d*
therapy for 10 days in beta-hemolytic streptoco
tions. Administer one hour before or 2 hours a
Supply: Capsules, bottles of 16. Each capsule co
racycline phosphate complex equivalent to 250
cycline HCl activity and 250,000 units of nystati

BRISTOL
BRISTOL LABORATORIES
Division of Bristol-Myers Comp
Syracuse, New York

Tetrex-F®

Each capsule contains tetracycline phosphate complex equivalent to tetracycline hydrochloride 250 mg. and nystatin 250,000 u

Tetrex-F is priced lower
than most
tetracycline-antifungal products.



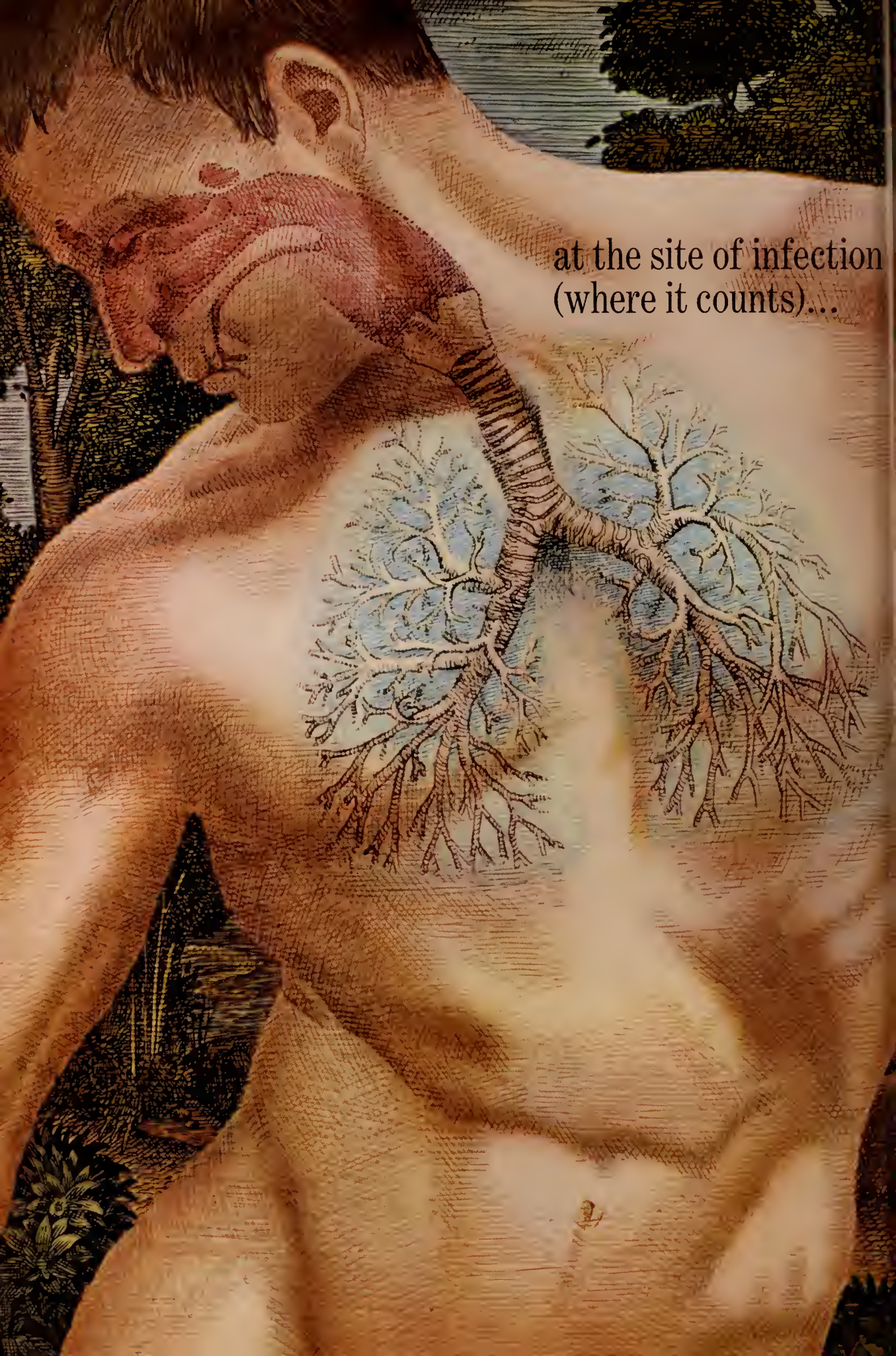
"Yes, Doctor, the pain is gone."

■ Despite introduction of synthetic substitutes, efficacy of 'Empirin' Compound with Codeine remains unchallenged.

'Empirin'® Compound with Codeine Phosphate gr. ½ No. 3
Each tablet contains: Codeine Phosphate gr. ½ (Warning—May be habit forming), Phenacetin gr. 2½, Aspirin gr. 3½, Caffeine gr. ½.

Keeps the Promise of Pain Relief

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N. Y.


at the site of infection
(where it counts)...

Ilosone® provides more antibacterial activity than any other oral erythromycin

Acid stable, better absorbed... Ilosone produces faster, higher, more prolonged blood levels, even in the presence of food[1-3]

Because it is the most active form of oral erythromycin, Ilosone can help assure consistently greater antibacterial activity at the site of infection. Ilosone produces peak antibacterial blood levels two to four times those of other erythromycin preparations.[1,2] Not only are these levels attained earlier, but they are maintained for much longer periods. Even the presence of food does not seem to affect the activity of Ilosone.[1,3]

In the treatment of patients with bacterial infections susceptible to erythromycin, Ilosone has compiled an excellent therapeutic record. Since it exerts its greatest activity against gram-positive organisms, it is particularly useful in common respiratory and soft-tissue bacterial infections. Ilosone kills—not merely inhibits—streptococci, pneumococci, and more strains of staphylococci than any other macrolide antibiotic. This bactericidal action, coupled with the high antibacterial levels attained, makes Ilosone especially valuable in patients with low host resistance, such as infants, debilitated individuals, and diabetics.

Ilosone has shown no cross-resistance with penicillin and may be effective against organisms that have become resistant to that agent. Despite its high antibacterial activity, Ilosone has demonstrated a low incidence of side reactions. Blood dyscrasias, ototoxicity, and tooth staining have not been observed. Infrequent cases of drug idiosyncrasy, manifested by a cholestatic jaundice, have occurred, but there have been no known definite residual effects.

700121

Ilosone®

Lilly

Erythromycin Estolate

(See next page for prescribing information.)

Ilosone®/ the most active oral form of erythromycin

Description: Ilosone is the most active form of oral erythromycin that has been developed. Because it is stable in acid, well absorbed, and excreted in lesser amounts in the bile, it provides faster, higher, and longer-lasting levels of antibacterial activity (ABA) in the serum, even when taken with food, than do comparable doses of erythromycin.

Indications: Ilosone is indicated in infections caused by microorganisms sensitive to its action (especially staphylococci, hemolytic streptococci, and pneumococci). The drug is therefore useful in a high proportion of bacterial diseases encountered in clinical practice and particularly in the treatment of bacterial infections of the upper and lower respiratory tract and soft tissues.

In the treatment of acute bacterial pharyngitis and tonsillitis, this antibiotic has promptly eradicated the bacteria (streptococci) and has produced a parallel prompt clinical improvement. There have been no group A beta-hemolytic streptococci resistant to this preparation. In beta-hemolytic streptococcus infections, treatment should be maintained for ten days to prevent the development of rheumatic fever or glomerulonephritis.

Erythromycin estolate has proved to be very effective in pneumococcus pneumonia and in acute bronchitis with pneumococci on culture. Bronchopneumonia and otitis media in children have responded well to its use.

The antibiotic has been used very successfully in staphylococcus infections. Good therapeutic results have been obtained in soft-tissue infections, abscesses, cellulitis, carbuncles, wound infections, and furunculosis.

In serious staphylococcus infections, erythromycin preparations should be used only in combination therapy with other antimicrobial agents. As is the case with any treatment regimen used in these severe conditions, surgical procedures should be performed when indicated, and large dosages of the antimicrobial agents should be employed. In this fashion, Ilosone has been effective in staphylococcus pneumonia, osteomyelitis, septicemia, empyema, and meningitis.

Multiple 500-mg. doses of the drug have been useful in gonorrhea and syphilis. Since penicillin is the drug of choice for the treatment of syphilis and gonorrhea, erythromycin estolate should be employed for these infections only in patients with a history of penicillin allergy. Also, other infections due to susceptible bacteria in patients known to be hypersensitive to penicillin or other antibiotics may be considered for treatment with Ilosone.

Contraindications: Ilosone is contraindicated in patients with a known history of sensitivity to this drug and in those with preexisting liver disease or dysfunction.

Side-Effects: Data obtained from seven years' use of propionyl erythromycin ester and erythromycin estolate (Ilosone) indicate that hepatic dysfunction with or without clinical jaundice may occur during or following courses of therapy with the drug.

Changes in liver function tests in such cases have been indicative of intrahepatic cholestasis. The symptoms appear to be the result of a form of sensitization. The initial symptoms have appeared in some cases after a few days of treatment but generally have followed one or two weeks of continuous therapy or several courses of the drug. Symptoms reappear promptly if the drug is readministered to sensitive patients, usually within forty-eight hours. Eosinophilia was noted in peripheral blood counts. The findings readily subsided without apparent residual effects when treatment was discontinued. Recovery was delayed in one reported instance. The physician indicated in this case that either drug-induced jaundice or viral hepatitis may have been responsible for the findings.

In one clinical study involving ninety-three patients treated with the antibiotic, three cases of jaundice were observed and an additional eleven cases developed some changes in liver function tests. Three of the patients had abnormal liver function tests a second time on readministration of the drug.

Even though it is assumed that not all cases of jaundice have been reported, it seems clear that the number is small compared with the amount of drug that has been used. Reported cases have included persons in whom there had been administered other drugs known to be associated at times with hepatic side-effects and cases in which the presence of viral hepatitis or other disease may have been responsible for the findings. In some of the cases, associated gastro-intestinal symptoms simulated the colic of biliary tract disease. In other instances, clinical symptoms and results of liver function tests resembled findings in extrahepatic obstructive jaundice. It appears that the occurrence of jaundice after administration of Ilosone is infrequent, but further investigations are being made to estimate its incidence more accurately.

In those cases mentioned above in which jaundice appeared to be definitely related to use of the drug, laboratory findin characterized by increased direct-reacting bilirubin, e alkaline phosphatase levels, negative or weakly positive c flocculation and thymol turbidity tests, elevated serum gl oxalacetic transaminase levels, peripheral eosinophilia, a mal cholecystograms.

Individual idiosyncrasy seems evident since jaundice l been reported in other patients taking prolonged courses medication. Patients with chronic infection have been giv to 2 Gm. of the drug daily for periods of two to six mont patients with rheumatic fever have taken prophylactic d 0.5 Gm. daily for two years without difficulty. In one gr 144 patients who received the drug daily for two years, n dice was noted. It was of interest that members of six o patients' families, who were not taking the drug, had e of jaundice during the study period.

Transaminase and serum alkaline phosphatase level determined in a group of fifty-four adults and children wh 250 mg. of Ilosone daily for an average of sixteen mon rheumatic fever prophylaxis. The results were compare those of a similar group of forty-four patients who receiv icillin. There were no cases of jaundice in either group. El of SGPT and serum alkaline phosphatase levels during the of treatment was observed in one patient treated with and in two patients treated with penicillin. Seven other p in the group receiving Ilosone and four others in the pe group showed elevations in one of the tests at some time administration of the drugs.

Very satisfactory therapeutic results, without toxicity reported in 102 pediatric patients who received short-tern day) courses of Ilosone in the treatment of streptococcus tions. Results of liver function tests in these patients wer parable to those in a similar control group who had r penicillin.

Gastro-intestinal disturbances not associated with hepa fects are observed in a small proportion of individuals as a of a local stimulating effect of the medication on the alim tract; however, the normal intestinal gram-negative ba flora is not appreciably altered by erythromycin drugs.

Although allergic manifestations are uncommon with t of erythromycin, there have been occasional reports of urt skin eruptions, and, on rare occasions, anaphylaxis.

Administration and Dosage: Ilosone is administered orall
Ilosone Pulvules®
Ilosone Chewable Tablets
Ilosone Drops
Ilosone, 125, for Oral Suspension

For infants and for children under twenty-five pounds c weight, the usual dosage is 5 mg. per pound every six hou children twenty-five to fifty pounds, 125 mg. every six (Tablets Ilosone Chewable should be chewed or crushe swallowed with water.)

For adults and for children over fifty pounds, the usual of Ilosone is 250 mg. every six hours.

For severe infections, these dosages may be doubled.

When larger doses are indicated, parenteral erythr therapy should be considered.

In the treatment of syphilis, the recommended total do 20 to 30 Gm. given in divided doses for a period of ten to days. Close follow-up of the patient is necessary since e mycin drugs have not had adequate evaluation in all sta syphilis. Examinations of spinal fluid are recommended a of the follow-up therapy.

For gonorrhea, 500 mg. four times a day for four da recommended. In the treatment of gonorrhea, patients suspected lesion of syphilis should have a dark-field exami before receiving antibiotics, and monthly serologic tests be made for a period of three months.

How Supplied: Pulvules Ilosone, Capsules, N.F., 125 and 2 (equivalent to base), in bottles of 24 and 100.

Tablets Ilosone Chewable, N.F., 125 mg. (equivalent to in bottles of 50.

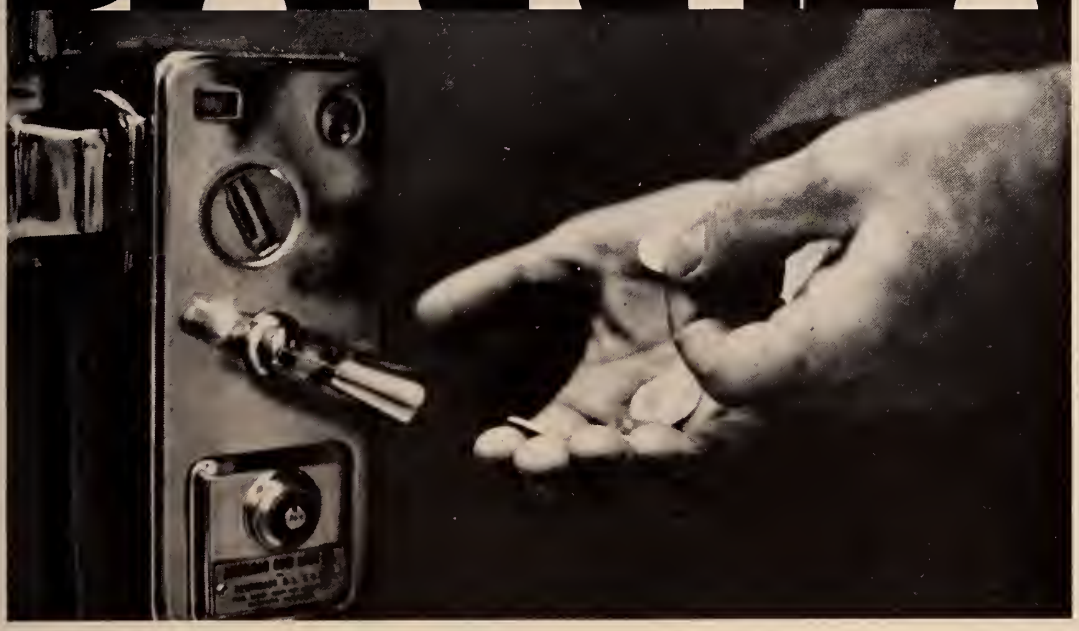
Ilosone Drops, 5 mg. (equivalent to base) per drop, in size packages, with dropper calibrated at 25 and 50 mg.

Ilosone, 125, for Oral Suspension, N.F., 125 mg. (equi to base) per 5-cc. teaspoonful, in 60 and 150-cc.-size pac

References: 1. Griffith, R. S., and Black, H. R.: Am. J. M. Sc., 24?:6
2. Griffith, R. S., and Black, H. R.: Antibiotics & Chemother., 12:39
3. Hirsch, H. A., Pryles, C. V., and Finland, M.: Am. J. M. Sc., 239:198.

Additional information available to physicians upon request.
Eli Lilly and Company, Indianapolis, Indiana 46206.

DIARRHEA



CANTIL®
(mepenzolate bromide)

Diarrhea, one of the most vexing symptoms of common G.I. disorders can often be curbed with Cantil (mepenzolate bromide), bringing welcome relief to the harassed patient. Relatively specific for the hyperactive colon, it helps reduce diarrhea, pain and spasm with minimal effect on other viscera. Cantil (mepenzolate bromide) is indicated whenever these symptoms are associated with irritable colon, gastroenteritis, diverticulitis, and mild to moderate ulcerative colitis.

It is an anticholinergic drug without narcotic properties. Side effects are usually mild.

LAKESIDE

IN BRIEF: One or two tablets three times a day and one or two at bedtime usually provide prompt relief. Cantil with Phenobarbital may be prescribed if sedation is required.

Dryness of the mouth, blurring of vision, constipation, nausea, vomiting, bloating and dizziness may occur but are usually mild and transitory. Urinary retention is rare. Caution should be observed in prostatic hypertrophy — withhold in glaucoma. Contraindicated in patients sensitive to phenobarbital and/or Cantil (mepenzolate bromide); in toxic megacolon, obstruction of G.I. or G.U. tract.

SUPPLIED: CANTIL (mepenzolate bromide) — 25 mg. per scored tablet. Bottles of 100 and 250. CANTIL with PHENOBARBITAL — containing in each scored tablet 16 mg. phenobarbital (warning: may be habit forming) and 25 mg. mepenzolate bromide. Bottles of 100 and 250.

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201


ECONOMICAL!
CORDRAN®
FLURANDRENOLONE
Half Strength
Lilly
cream and ointment
Additional information available to physicians upon request.
Eli Lilly and Company, Indianapolis, Indiana 46206.
600811



Scientific Articles

Management Of Inoperable Breast Cancer by Endocrine Methods

EUGENE T. DAVIDSON, M.D.

The management of inoperable cancer of the breast depends upon many variables. Each case has to be individualized. Which cases should be selected for endocrine therapy?

Metastatic breast cancer should be treated by simple excision of the lesion, irradiation therapy or instillation of intrapleural drugs when these measures suffice. When this form of therapy is not sufficient and progressive inoperable metastatic lesions are present, hormonal therapy should be given a trial. Thus, in virtually all cases the patient should eventually receive hormonal therapy. It should be realized that if irradiation or intracavitary drug therapy is used conjointly with hormone therapy, the important observation of hormonal response may be obscured. This combination of therapy is occasionally indicated, however.

Why is hormonal therapy recommended, and why is response to hormonal therapy an important observation? A period of regression lasting six months to five years, or occasionally more, may occur in hormonally responsive patients who comprise from 25% to 50% of this group of patients. In these responsive patients, the months of life span may be, on the average, tripled; and during this period the discomfort is considerably ameliorated. Approximately 50% of those who do not have an objective remission will have a subjective improvement in the pain. In the patients who respond, there may be, at times, almost complete regression of the tumor and the bones may return to normal density.

It is important to determine whether remission has occurred, since the patients who are hormonally responsive are inclined to further remission with additional hormonal or ablative therapy with continued prolongation of their life span and symptomatic amelioration.

Can we predict which patients have the best chance of initial and continued response? From

Read before the Florida Medical Association, Ninety-Second Annual Meeting, Hollywood, May 13, 1966.

experience with previous cases, predictions can be made as to those who will respond. They are the patients who should be motivated towards endocrine therapy; all of them should be given a trial of hormonal management when progression occurs. The patient whose metastatic-free interval is over three years, or whose metastatic disease is slowly progressive, has a better chance for hormonal response. Responsiveness seems to be more frequent with the older age group who are 10 or more years postmenopausal. In the menstruating years, the group over age 35 seem to respond more frequently to oophorectomy. Patients in whom recurrence rapidly follows breast surgery are poor prospects for remission with endocrine therapy. Those with inflammatory lesions also tend to respond poorly, as do younger women under age 35. Any patient may respond, however, and should be given a trial on endocrine therapy. In general, bony and soft tissue lesions respond with better results than do the visceral lesions; but here again, we cannot definitely predict that the visceral lesions will not respond. All types of metastatic lesions may respond.

What are the best types of hormonal therapy? Oophorectomy: When estrogen secretion is present in substantial quantities oophorectomy is the treatment of choice and gives remission in 30% to 45% of the cases. This estrogen secretion can be approximated by the vaginal smear in the postmenopausal woman. Rarely is a response to oophorectomy observed after one year past the menopause.

Estrogen Administration: (see case 2) The postmenopausal woman without estrogen effect in the vaginal smear should be given estrogen therapy first. It should be remembered that estrogens, like androgens, are rarely effective the first five years after the menopause; so it is best used in the patient five or more years postmenopause. Stilbestrol, 5 mg. three times daily, or Premarin, 5 mg. three times daily, should be administered until a period of response is established and continued until the remission is complete and progression



Fig. 1.—(Case 1) Prior to estrogen therapy.

occurs again. Cessation of therapy in certain of these patients who have responded may again result in some remission and improvement. This period of response should always be awaited before institution of further hormonal therapy. Androgen or anabolic steroid therapy is less effective than estrogen therapy and is often not well tolerated. Androgen use is generally limited to patients previously responsive to estrogen or oophorectomy or in the postadrenalectomy recurrence group. This type of secondary therapy with the androgens is frequently ineffective so that if time is not sufficient for its utilization, then other forms of therapy should be carried out.

Adrenalectomy: The ablation procedures of adrenalectomy and hypophysectomy are especially suited to patients already showing a response to prior endocrine therapy. The remission rate in these patients is about 45%. Again, it is noted that an additional number of patients are improved subjectively, although not objectively. This is not a difficult procedure in the hands of the well qualified surgeon and with adequate steroid therapy, using both intramuscular and intravenous coverage, the operative mortality is around 5%. As with hypophysectomy, increased mortality will occur when very ill patients are operated upon.

Hypophysectomy: (see case 1) The newer techniques making this procedure less traumatic have popularized it. Some authors believe that the results of hypophysectomy are better than those of adrenalectomy, but larger cooperative analyses consider them of equal merit. With newer techniques of hypophysectomy, the morbidity and mortality have decreased. The operative mortality is similar to that of adrenalectomy, at about 5%.



Fig. 2.—(Case 1) During estrogen therapy, demonstrating radiographic disappearance of skull metastases.



Fig. 3.—(case 2) The site of incision of the transpalatal-transphenoidal hypophysectomy after complete healing is barely visible.

In certain cases the patient is best treated, for technical reasons, by adrenalectomy; whereas in others treatment is best handled by hypophysectomy, depending upon the location of the metastatic lesions.

Adrenal Corticoids: Adrenal corticosteroid therapy also is more likely to be effective in the hormonal-responsive patients, but the frequency and duration of response give it a last effort role in the endocrine management of these cases and should not be substituted for the ablative procedures. Hypercolcemia should be treated with adrenal steriods.

Report of Cases

Two cases are presented which illustrate the effects of estrogen therapy and hypophysectomy.

Case 1.—A white woman, aged 64, was operated on in 1951 for cancer of the breast. A left radical mastectomy was performed and postoperative x-ray therapy given locally. No axillary metastases were found. A spontaneous menopause occurred in 1952. She was well until mild anemia was noted in 1961, and a bone marrow aspiration disclosed tumor cells. No bone lesions were demonstrated on x-ray. Full evaluation of anemia was otherwise negative, and she continued to feel well. In 1964 the old back pain, associated with a grade 1 spondylolisthesis, became severe, and a bone survey disclosed generalized bony demineralization, widespread osteolytic metastases, and wedging of the T1 vertebra. Vaginal smear showed no estrogen effect. Amelioration of pain occurred initially in response to fluoxymesterone (Halotestin) therapy but after three months side effects were not tolerated and this drug was discontinued. Premarin therapy was then begun. Roentgenographically, bone density increased and metastatic lesions filled in on estrogen therapy (figs. 1-2). The patient continues to be active and pain-free on estrogen therapy. The long period of slowly progressive metastases observed in this patient was a good indication that she would respond to hormonal therapy. When actual progression was evident and symptoms indicated, this therapy was initiated.

Case 2.—A white woman, aged 62, had a left radical mastectomy in 1952 for cancer of the breast. In 1962, recurrence with osteoblastic and osteolytic metastases in the lumbar spine was associated with pain in the back. At that time the patient was treated with stilbestrol and x-ray therapy without progression on x-ray or recurrence of pain until 1964. Further x-ray therapy did not relieve the pain in 1964, and stilbestrol was discontinued with immediate relief of pain for a period of six months before recurrence. In November 1965, transpalatal-transphenoidal hypophysectomy (fig. 3) was performed with immediate relief of pain. She returned to active life for five months before the pain returned and new lesions were noted. Despite the marked improvement which was afforded, a six month progression-free period was not observed. She would, therefore, be classified by accepted criteria as unresponsive to hypophysectomy. She is classified as estrogen responsive.

Summary

In all cases of inoperable metastatic cancer of the breast endocrine therapy should be given a trial before the patient dies of metastatic disease.

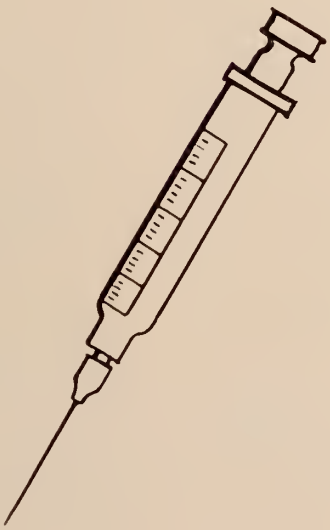
Patients in the older age group and those with the slower-growing, late recurring lesions should be treated without fail.

Adrenalectomy or hypophysectomy is to be recommended for patients responsive to initial hormonal therapy.

With the present endocrine replacement and operative coverage, the risk of ablative procedures is lower and worthwhile.

Acknowledgment: Drs. John W. Stone, Purdue L. Gould and T. Hutchinson performed the transpalatal-transphenoidal hypophysectomy.

Dr. Davidson, Watson Clinic, Lakeland 33802.



Prenylamine Lactate In The Treatment Of Angina Pectoris

MARTIN S. BELLE, M.D.

Many factors are capable of precipitating an attack of angina, nearly all of which can in some way be associated with increased myocardial stress and the need for more oxygen. The actual mechanism by which they precipitate angina is still unknown. Most believe it is secondary to anoxia resulting from decreased coronary blood flow in the presence of increased oxygen demands.

See editorial comment, page 144

It is, therefore, essential that any drug used in the treatment of angina be capable not only of improving coronary flow but also of reducing myocardial work. Messer and Neill[1] have shown that in patients with coronary artery disease, exercise causes a rise in coronary blood flow; however, there is also a rise in the myocardial oxygen extraction suggesting that the rise in coronary flow is not sufficient to meet the increased metabolic needs of the arteriosclerotic heart under stress.

When we were first introduced to prenylamine* (Segontin) we undertook the clinical trial of this compound with great doubts as to its therapeutic effectiveness; therefore, we used it in a few patients whose angina was extremely difficult to control and necessitated the use of 20 or more nitroglycerin tablets per day.

We were so impressed with these preliminary results that we extended our study to include 64 patients. A double blind technique was not utilized because all of these patients had objective evidence of significant coronary disease and had never been adequately controlled on numerous medications used previously.

Methods

Sixty-four patients with known coronary artery disease were included in this study. Ages ranged from the fourth to the eighth decade. The severity of angina varied. All were using at least six nitroglycerin tablets daily. Previous medication, usually long-acting pentaerythritol tetranitrate, for angina was not discontinued. In addition, other medications included diuretics, digitalis, sedatives and anticoagulants. Most of the patients were initially started on 60 mg. twice a day; however, the maintenance dosage in the majority of the patients was 180 mg. to 240 mg. per day.

Our criteria for an effective response were as follows:

1. Excellent response: need for nitroglycerin tablets eliminated completely, or patient needed less than one nitroglycerin tablet daily.
2. Good response: nitroglycerin consumption decreased by at least 50% but not eliminated.
3. No effective response: daily need for nitroglycerin not decreased by at least 50%.

The patients were given a card which enabled them to record daily the number of nitroglycerin tablets taken and a comment at the end of each day whether they felt better, worse, or unchanged. Electrocardiograms were taken from time to time and any changes noted. Serial transaminase determinations and hematocrit levels were obtained. The majority of the patients were seen weekly

*Prenylamine Lactate, N- 3' Phenylpropyl - (2') 1 - dephenylpropyl - (3) Amine Lactate (Segontin).

or biweekly and questioned in detail regarding side effects such as dizziness, nausea, vomiting, lethargy, weakness, palpitations and evidence of congestive heart failure.

Results

Sixty-four patients started on this therapy; three were eliminated from the study because of inability to evaluate effectiveness of the drug due to inadequate replies to the questionnaire. Seven were excluded since they failed to return for adequate follow-up. Fifty-four patients consisting of 33 males and 21 females were followed from one to 21 months. The drug was effective in 38 patients (70%) and ineffective in 16 (30%). When the drug was effective, the majority had complete elimination of nitroglycerin intake.

Side effects seemed to be definitely dose-related since at the lower dosage, 120 mg./day, fewer patients experienced nausea and vomiting. Conversely, greater success was obtained by the use of 60 mg. three or four times daily, that is, 180 mg. or 240 mg./day. The effect of prenylamine is summarized in table 1.

To prevent nausea and vomiting, most patients were started on 60 mg. twice a day; however, in two patients who had otherwise excellent results intolerance on this regimen developed and the drug had to be discontinued.

All of the patients had electrocardiograms indicative of coronary artery disease. Diagnosis, that is, ASHD with infarct versus ASHD without infarct, seemed to play no role in the success of this therapy. Twenty-five patients had infarcts with 24% failures and in 29 patients without infarcts there were 34% failures.

Significantly, in patients in whom this therapy was successful, follow-up periods as long as 21 months showed no secondary failure; however, one patient died suddenly in his sleep four months after beginning treatment with the drug. Several patients in the effective group were hospitalized during therapy for coronary insufficiency and/or infarction.

In patients on anticoagulant therapy, prenylamine seemed to affect coagulation as measured by PT time by 10 to 15% of original values. Exact significance of this change and its mechanism was not studied.

We have noted in the serial electrocardiograms a prolongation of the QT interval in a number of our patients with T-U fusion or prominent U waves; however, there was no change in serum potassium concentration.

Table 1.—Results of Treatment

Number of Patients	Maintenance Dose mg. per day	Results of Treatment			
		Excellent	Good	Not Effective	Side Effects
11	120	4	3	4	2
23	180	14	4	5	4
20	240	7	6	7	6
Total 54		25	13	16	12

Several who had paroxysms of rapid heart beat found that they were either decreased or not present after the use of the drug. There were improvements in the cardiograms of most patients—evidence of decreasing subendocardial ischemia. Most had an increase in exercise tolerance and amount of effort (walking, climbing stairs) before experiencing symptoms. Serial transaminase determinations and hematocrit levels showed no consistent changes.

Discussion

One of the explanations of the effect of this agent on the electrocardiogram may be due to shift in the intracardiac electrolyte concentrations. It may have a quinidine-like effect on the myocardium, perhaps decrease the irritability. The effect on the heart muscle by prolonging diastole probably permits better coronary filling, thus decreasing the work of the heart and increasing its efficiency.

Schone and Lindner[2] investigated the action of prenylamine on the catecholamine metabolism and found a decrease of norepinephrine and serotonin concentration in the heart muscle and brain in rats. In contrast to the MAO inhibitors, prenylamine only reduces norepinephrine and serotonin content of brain and heart muscle and does not deplete the tissue of catecholamines completely as reserpine does.

Hemodynamic effects after intravenous injection of prenylamine reveal:

1. Essentially stable arterial blood pressure in the normotensive patients.
2. Hypotensive effect in the hypertensive patients.
3. Moderate reduction of the pulse rate of about eight beats per minute, possibly due to a reduction in central sympathetic activity.

Dog studies with oral C 14 labeled prenylamine indicate that a constant plasma level is

achieved during continuous medication between the third and sixth day, with a secondary slight rise occurring from the tenth to the twenty-first day. There was a constant rate of excretion of about 15% in the urine while 70% of the total dose was excreted via the feces. Schlepper and Witzleb[3] demonstrated that prenylamine increased coronary flow and oxygen content in the intact dog.

Studies in humans on the mechanism of action of prenylamine by Kuschke, et al.[4] showed that it leads to changes in amine excretion. They investigated the effect of prenylamine on amine metabolism in 14 persons, 10 of whom were anginal and/or postmyocardial patients. Urinary excretion of norepinephrine and epinephrine was measured prior to and during prenylamine treatment in doses ranging from 120 to 180 mg./day. Increased urinary excretion of catecholamines, particularly epinephrine, occurred in 12 of the 14 patients.

Lowering of the tissue concentration of catecholamines can also be measured indirectly from the blood pressure-elevating effect of tyramine. Tyramine acts by releasing catecholamines from the tissues, which then act on the end organ. Any drug which reduces the blood pressure-elevating effect of tyramine, therefore, must lower the concentration of the amines in the tissue. In humans, the pressor effect of tyramine is significantly lowered following a five day course of prenylamine (test performed in 12 normals).

In humans, intravenous injection of 10 mg. of prenylamine lactate resulted in the lowering of the concentration of free fatty acids in the plasma. This effect would seem to be attributable to blocking of endogenous catecholamine action.[5] It is generally accepted that myocardial hypoxia induces anginal pain. The evidence indicates that coronary vasodilation and increased blood supply may be of less importance in relieving this hypoxic state than is the influence of reducing such catecholamines as norepinephrine and epinephrine. As Raab and others have shown, the myocardium concentrates these catecholamines, which in turn excessively speed the rate of oxygen consumption. As a result of this abnormally rapid localized consumption of oxygen, areas of the myocardium are deprived of minimal oxygen requirements and pain-producing local hypoxia results.[6,7]

Clearly, this mechanism of action offers a completely new and promising approach to the treatment of anginal pain. It opposes the accumulation of abnormal metabolites in the myocardium and provides for better oxygenation of the heart even in the presence of arteriosclerotic coronary disease. In double blind studies in patients, prenylamine caused a decrease in the number of attacks and in the number of nitroglycerin tablets required by patients.[8-11]

Goldman and Atkins[12] reported that prenylamine sharply reduced or eliminated entirely the need of the patients to take nitroglycerin. It produced a marked increase in exercise tolerance but also decreased blood pressure in 29.5% of the patients in their cases, all of whom had previously been hypertensive.

There is substantial evidence that tolerance develops to most of the effective nitrates. Cross tolerance has also been demonstrated and it is conceivable that as a consequence of the use of a long-acting nitrate, tolerance to the useful action of nitroglycerin may develop, and an ineffective "prophylactic" agent may thus make an effective nitrate, such as nitroglycerin, ineffective.[13]

Prenylamine represents a new class of chemical compounds not related to the nitrites or the nitrates and not previously used in therapy. There has been no evidence of tolerance or cross tolerance in patients.

Summary

We have given prenylamine lactate to 64 patients in a dose ranging from two to four tablets daily (120 mg. to 240 mg.). The usual dosage was 180 mg. to 240 mg./day. Ten of these patients were lost to the study; of these, three were dropped because of inability to evaluate effectiveness, and seven were lost to follow-up. All patients were taking at least six nitroglycerin tablets daily, even though receiving a long-acting nitrate preparation.

A good to excellent response was recorded in 38 patients, 70% (the majority in this group had excellent results–66%); and the good and excellent results totaled 70%, while in 16 patients (30%) the need for nitroglycerin did not decrease by at least 50%.

The most common side effects were nausea and vomiting; they occurred mostly at 240 mg./day dosage schedule. A few patients complained

of lethargy. Two patients who had effective responses had to discontinue taking the drug because of nausea and vomiting before four months had elapsed.

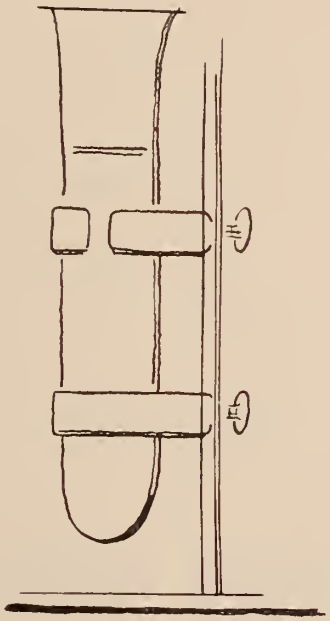
No tolerance or cross tolerance developed in any of the patients. In the management of coronary artery disease and angina pectoris, prenylamine is an effective agent.

Whatever the precise mechanism of action, prenylamine taken routinely prevents attacks of angina pectoris or markedly diminishes the number and severity of anginal attacks in the majority of patients.

Acknowledgment is made to Lloyd Brothers, Inc., for the use of prenylamine lactate (Segontin) and to Dr. Alader Sule, Clinical Research Associate.

References are available from the author upon request.

Dr. Belle, 1431 North Bayshore Drive, Miami 33132.



Emergency Treatment Of Chest Injuries

THOMAS B. FERGUSON, M.D.

The principles of sound thoracic wound management were all learned and clearly defined out of the large experience of World War II. These principles, whether one is talking about stabilization of the chest wall, evacuation of air from the pleural cavity, or treatment of traumatic wet lung, are just as valid today as they were 20 years ago. The circumstances under which these principles are applied, however, are constantly changing, modified by factors such as types of wounds and new methods of treatment. This discussion will stress the changes that are taking place in the care of these wounds.

Although stepladders, knives and guns still contribute their share of misery, the instrument to be reckoned with above all others is the automobile. This year, almost two million persons will be injured and 50,000 will die in highway accidents.[1] It is estimated that over one quarter of these deaths will be directly related to chest wounds. Thus, the so-called crush chest injury is emerging as the major type of thoracic trauma being seen today.

Crush Chest Injury

The crush injury is usually of the nonpenetrating type, with multiple disruptions of the bony structure and closed contusions and lacerations of thoracic organs. These injuries are more subtle than penetrating wounds and their management requires a greater understanding of thoracic physiology. Practically, with such a crush injury, little can be done at the scene of the accident. There are usually no sucking wounds to be dressed, no external bleeding to be stopped. Attention must be focused on establishing a satisfactory airway and then proceeding without delay to a well equipped hospital where resuscitation can begin. Respiratory obstruction due to mucus, blood or vomitus is one of the major causes of death between the time of wounding and arrival at the hospital. In addition to the ever-present oxygen tank, all emergency vehicles should carry airway equipment and suction machines, and the attendants should know how to use them correctly. This measure will do more to assure that the patient reaches the hospital in optimum condition than any other.

At the hospital, hopefully, resuscitation will begin immediately. It is easy to list in numerical order the procedures which should be carried out in a complicated multiple injury case, but as is well known, this ideal is seldom achieved in the average emergency room. The patient who goes into shock waiting for x-rays, the patient who arrests because tracheotomy is not done, the patient in whom a tension pneumothorax is overlooked: these experiences unfortunately occur. Occasionally such difficulties can be traced to errors by personnel, but many times the overcrowding of emergency room facilities with nonemergency cases makes it impossible to watch a critically injured patient closely. This situation has led some institutions to adopt, with profit, a plan proposed by Dr. Rudolph Noer in Louisville.[2] Multiple injury cases bypass the emergency room and are taken directly to a fully equipped operating room held ready for such emergencies. Here

Associate Professor of Thoracic and Cardiovascular Surgery, Washington University School of Medicine, St. Louis, Mo.
Read before the Florida Medical Association, Ninety-Second Annual Meeting, Hollywood, May 13, 1966.

the wounds are dressed, fluids given, x-rays done, and if necessary, surgery performed. The key to the success of this method is in the moment-to-moment observation of the patient. The plan deserves careful consideration for any hospital that receives a large volume of trauma.

Management

In the management of the crushed chest injury a few specific points deserve emphasis. One must constantly be reminded how deceptive they can be. An innocuous film of the chest, showing a few fractured ribs and a small pneumothorax, in 24 hours can be a blizzard of pulmonary hematoma and edema (fig. 1). Close continued observation is mandatory. The efficacy of intercostal nerve block for traumatic wet lung has been established beyond question, and yet this form of therapy never seems to be used as frequently as it should be.[3] The blocks should be started as soon as the magnitude of the injury is established and repeated every four to six hours for as long as two days if necessary. By early interruption of pain pathways, the copious secretions produced by reflex action can be cleared and the wet lung syndrome avoided or at least attenuated.

In the critically ill patient, there is no place for a wait-and-see attitude with hemopneumothorax. All but the smallest pockets should be evacuated with large bore intercostal catheters. Attention can then be focused on other injuries. This procedure may also avert the development of a clotted hemothorax and the later need for decortication. With massive hemorrhage into the pleural cavity, even when bleeding has stopped, early thoracotomy and evacuation of the clot have been advocated in recent years.[4] If judiciously applied, this form of treatment has great merit in terms of rapid rehabilitation of the patient.

Tracheostomy is another adjunct of proven value. It reduces dead space, promotes removal of secretions and facilitates therapy with aerosols and mucolytic agents. Recently, the enthusiasm for tracheostomy has been dampened by a complication that is becoming increasingly prevalent —pneumonia caused by Pseudomonas. Figure 2 illustrates such a case. This woman had a thymectomy and tracheostomy for myasthenia gravis. Figure 2A shows the appearance of the chest just after operation. The film shown on 2B was taken two weeks later, just before she died of Pseudomonas pneumonia. This organism favors highly moist alkaline surfaces, so that infection is promoted by a dirty tracheal stoma, continuous humidity and the suppression of other bacteria by broad spectrum antibiotic therapy. A clean wound, frequent tube changes, intermittent use of humidification and the use of strictly sterile equipment for bronchial suctioning will help prevent infection. There is no satisfactory antibiotic for use against Pseudomonas. Figure 3 shows the aids used in the care of tracheostomy: disposable tubes, highly absorbent pads and a convenient and inexpensive way to perform suction without the need of sterile gloves. The small segment of plastic tubing is sterilized with the catheter, and by means of this tubing the business end of the catheter can be manipulated without being touched.

The management of the flail segment in crush injuries has traditionally been with a pressure dressing and towel clip or wire fixation. In recent



Fig. 1.—X-ray appearance of traumatic wet lung following crushing injury to the chest.



Figure 2.

years, this treatment has been in part supplanted by the use of respirators to provide immobilization of the chest wall. This goes by the term "internal pneumatic stabilization."[5] It is an effective form of therapy, for it not only prevents paradox, but also relieves the patient of the work of breathing during the critical phase of injury, and thus assures that respiratory exchange will be adequate and acid-base balance will be maintained at near-normal levels. The method is not without hazard, however. Good nursing care with constant attention to secretions is all important, for the more effective machines, such as the Mörch, Engstrom or Emerson units, are piston devices which deliver a fixed volume of air per stroke irrespective of changes in resistance in the tracheobronchial tree. Bedside biochemistry has become an important part of the care of these patients. With convenient, relatively inexpensive equipment, pH, pCO_2 and pO_2 determinations can be done on as little as 0.1 ml. of blood in four to five minutes time so that virtual moment-to-moment monitoring is possible.

Blunt Trauma to the Heart

An injury being seen with increasing frequency is blunt trauma to the heart. At the St. Louis County Hospital, a study was done on 61 accident victims under 30 years of age.[6] Seventeen patients (30%) showed electrocardiographic changes compatible with myocardial injury of moderate to severe degree (fig. 4). Included were one child who died with severe contusion of the left ventricle, another child who survived rupture of the tricuspid valve, and a third patient in whom a calcified hematoma of the left ventricle developed. Septal defects due to blunt force are also being reported with greater frequency. This study indicates that serial electrocardiograms in patients with blunt trauma are worthwhile and may provide the clue to why certain patients show continued hypotension and fail to respond to resuscitative efforts.

Figure 5 is mute testimony to the forces of high velocity. A seven year old boy, without having a single rib fracture, sustained rupture of two papillary muscles and one leaflet of the tricuspid valve and required a valve prosthesis to save his life.

Early Surgery

The principles of chest resuscitation that we have been discussing—1. Stabilization of the chest wall, 2. Evacuation of air or fluid from the pleural space, 3. Control of pain, and 4. Elimination of

ELECTROCARDIOGRAPHIC CHANGES COMPATIBLE WITH MYOCARDIAL INJURY
(17 PATIENTS)

FLATTENED OR INVERTED T WAVES	13
LOW VOLTAGE QRS COMPLEXES	4
ST SEGMENT ELEVATION	3
ST SEGMENT DEPRESSION	2
HIGH VOLTAGE AND PEAKED T WAVES	2
INCOMPLETE LEFT BUNDLE BRANCH BLOCK	1
COMPLETE RIGHT BUNDLE BRANCH BLOCK	2
INCOMPLETE RIGHT BUNDLE BRANCH BLOCK	1
BRADYCARDIA	1
FREQUENT VENTRICULAR PREMATURE SYSTOLE	1
TOTAL	30

Figure 4.



Figure 3.



Fig. 5.—Crush injury with rupture and laceration of the tricuspid valve. Massive insufficiency made prosthetic valve replacement necessary one year after injury.

secretions—are the guideposts of treatment for the vast majority of chest injuries. It is noteworthy that these treatments are nonsurgical. We quickly learned during World War II that there is no place for injudicious early thoracotomy in the management of chest injury.[7] It is for this reason that in any severely wounded patient, the group of lesions shown in figure 6 must always be kept in mind and specifically looked for, since they are the ones that will require early operation.

The most frequently missed is rupture of the diaphragm. Early films may be quite innocuous, showing only a diffuse opacity over the left lower chest which is easily mistaken for pleural fluid or pulmonary contusion (fig. 7). This finding in a seriously injured patient should be enough to suggest the diagnosis, and a nasogastric tube with lipiodol instillation will confirm or rule out a tear. An operation should be performed as soon as the patient's condition permits. It is true that some cases undiagnosed at the time of the accident remain asymptomatic for long periods of time, but the potentially lethal complications of strangulation of the stomach or delayed rupture of the spleen make early operation advisable. One must also remember that esophageal laceration can also occur with blunt trauma as well as with penetrating injury. If the possibility exists, lipiodol esophagram and esophagoscopy should be done.

Lacerations of the tracheobronchial tree must always be kept in mind. Large tracheal tears call for immediate recognition and relief. Bleeding is profuse and dyspnea, cyanosis and subcutaneous emphysema develop rapidly. A prompt incision in the neck will confirm the diagnosis. Immediate primary repair with a decompressing tracheostomy below the anastomosis should result in uneventful recovery. Bronchial ruptures also require prompt diagnosis and treatment if scarring and total loss of lung function are to be avoided. In most cases the point of shear is the right main stem bronchus just as it takes off the trachea. The diagnosis should be apparent if tension pneumothorax develops and two intercostal catheters attached to the suction still will not expand the lung. If the bronchial tear is not complete there will be no pneumothorax, but massive mediastinal and subcutaneous emphysema will occur. Emergency bronchoscopy is then needed to make the

CHEST TRAUMA - EARLY THORACOTOMY

Ruptured Diaphragm
Tracheal Laceration
Bronchial Rupture
Thoracoabdominal Injury
Esophageal Laceration
Penetrating Cardiac Wound
Aortic Rupture

Figure 6.

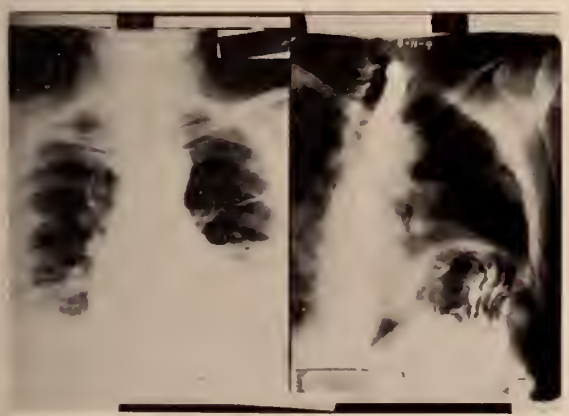


Fig. 7.—Traumatic rupture of the diaphragm.

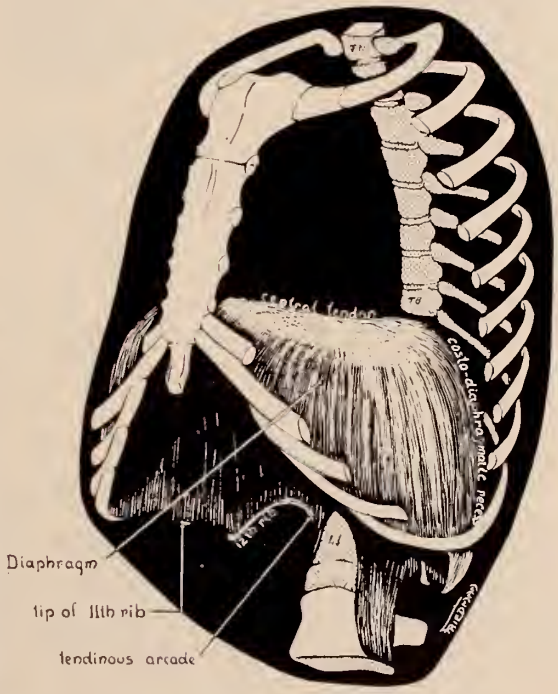


Fig. 8.—Diagram showing the relation of the diaphragm to the costal cage.

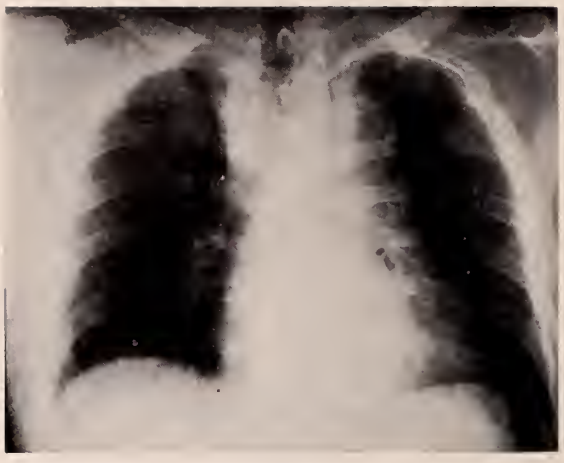


Figure 9a.



Figure 9b.

Findings on routine chest roentgenogram and aortogram in patient with traumatic rupture of the aorta. Repair carried out with the aid of left atrial femoral artery bypass.

diagnosis. Immediate thoracotomy and primary repair (again with a tracheotomy to relieve tension on the suture line) will restore full lung function.

The necessity for early operation in thoracoabdominal trauma is well known. This applies to many cases of blunt trauma as well as to the more familiar penetrating wounds. It is particularly true for left-sided wounds where stomach, spleen and colon normally rise under the diaphragm as high as the level of the eighth thoracic vertebra and, with expiration or exaggerated position, may go even higher (fig. 8). For such injuries, a thoracoabdominal incision is preferred as giving the best exposure for repair of all involved structures.

Penetrating injuries of the heart may or may not give rise to acute tamponade, depending on the location and size of the pericardial opening. It is important to remember that a cardiac laceration can be the source of continued intrapleural accumulation of blood. Although pericardiocentesis may alleviate the signs and symptoms of tamponade, there is an increasing experience that suggests that most, if not all, of these patients should be subjected to an exploratory operation rather than relying on nature to seal the laceration.[8]

Traumatic rupture of the aorta is a lesion almost exclusively identified with the automotive age. Sudden deceleration is the most common method of producing this injury; so there is an increased incidence paralleling the increase in automobile accidents. A recent study of 1,259 fatal automobile accidents reported in the Journal of the American Medical Association showed that one of every six victims sustained rupture of the aorta.[9] This is a lesion that rarely offers opportunity for treatment during active bleeding, although some spectacular cases have been reported. There are, however, a number of patients in whom the tear is small and bleeding is for a time, frequently a number of days, controlled by the periaortic tissues. The lesion must be suspected, for positive findings may be few. The mediastinum at the base of the heart will be widened and the aortic outline distal to the left subclavian artery, which is the usual site of the tear, is indistinct (fig. 9). Such a patient needs angiographic study without delay and, if a tear is demonstrated, repair carried out with the aid of extracorporeal support. The development of the disposable bag oxygenator has made it possible for every large general hospital to handle such emergencies.

References are available from the author upon request.

Dr. Ferguson, Barnes Hospital Plaza, St. Louis, Mo. 63110.

The Patient
A Symptom Of The Family

ALBERTO DE LA TORRE, M.D.

Rather often one hears of the disruption caused his family by the psychiatric patient. Although this is true, it has obscured the fact that rather often the family has disrupted one member of the family, has made him sick.

The thesis I want to advance is simple to enunciate: *the patient is a necessary symptom of the family*. That is, the family, in order to maintain its equilibrium, develops the patient. We have all been acquainted with this phenomenon, but in few places can you find it systematically spelled out, much less what to do about it. I am not referring to those instances where we say a person is neurotic, psychotic, delinquent or alcoholic because he was neglected, rejected or deserted by his parents. I am referring to instances where the family needed a patient to protect the family from a breakdown. It would be an oversimplification if I said this is the only cause of the patient being mentally ill; but it is necessary to isolate this cause so that it can be seen in bold relief, and so that it does not remain at best one more contributing cause and at worst an entirely neglected possibility.

Because members of the family are emotionally involved with the patient, what they say about him is colored by their bias to a greater or lesser degree, and usually to a greater degree than we realize. Psychiatrists, psychologists and social workers take this factor into consideration, but I am convinced the desire of the family for the patient to remain so is not recognized in all its dynamic implications with the frequency that it should be.

In fact, this problem is not unique to the family. At times the psychiatrist or allied worker selectively neglects this problem, or gives patients ambivalent, confusing, double-meaning messages, perpetuating the patient as a patient. They force on him, so to speak, an obligation to remain sick. At other times the psychiatrist has certain unconscious attitudes that compel him not to cure the patient and to tell the family that his is a very "difficult case," a euphemism for incurable. For instance, the psychiatrist may have strong "moralistic" tendencies, unrecognized by him as such, and consider certain illnesses "vices." Under these circumstances he may view, let us say, drug addiction as incurable because unconsciously he thinks persons with this problem should be "locked up," or "punished" in some other way. His nihilistic attitude reflects his own aggression toward the patient though, needless to say, this is rationalized as "true scientific objectivity," borne out by his lengthy experience with the disease in question.

Such psychiatrists consider any other viewpoint naive, unsophisticated and the result of not having had the experience they have had in trying to help the poor souls afflicted with this malady. You can easily imagine what this climate of disillusionment and disgust will do in a therapeutic situation. It engenders a deeper pessimism, a more tenacious hopelessness; and communication between doctor and patient becomes more and more precarious. If this problem coincides with a similar one in the family, mutually reinforcing each other, they make the impact of the illness

a devastating blow for the patient, perpetuating him as a patient and often for the community because it looks to the psychiatrist for guidance and teaching.

Report of Cases

A few examples illustrate my thesis:

Case 1.—A 22 year old man came for treatment because of homosexuality which caused him guilt and shame. His attempts to curb his impulses had proved fruitless. As treatment progressed it became clear that an older sister, 15 years his senior, was a latent homosexual. She was masculine in appearance, very dominant and had been the economic mainstay of the family for many years. When the patient's homosexual practices diminished as a result of treatment, not only the sister but the other members of the family as well, began sabotaging treatment, at first subtly, later overtly. Further investigation made it clear that the older sister's main interest was her attractive younger sister. If she became an overt homosexual, the likelihood of seducing the younger sister would have been possible; and this possibility seems to have been recognized unconsciously by the family as a greater threat than for the only boy to become a homosexual. After all, his acting out was perforce away from the family circle; so the family fostered and tolerated his homosexuality in order to prevent the aforementioned consequences. The older sister enjoyed vicariously what he did as she became his confidante.

Case 2.—A 15 year old boy was brought for treatment by his parents because he was expelled from boarding school after stealing money from another boy. The history disclosed similar behavior for several years. Help was sought only at the insistence of the school authorities. Shortly after the initial interview the mother requested to see me alone. She said that the father had always dismissed the boy's thefts as "childish pranks," had resisted her suggestions of seeking psychiatric consultation in the past and now was protesting bitterly because of the cost Yet, when he spoke with me regarding the fee, he indicated that it was a low price to pay to prevent his son from becoming a thief and ending in jail.

During the course of treatment the boy disclosed in many ways his feelings of rejection by his father except when he stole, at which time the father punished him but also spent long hours talking to him. In the meantime my monthly bills were ignored. Finally, on the third month, therapy was interrupted because of nonpayment and refusal of the father to talk with me regarding this matter. Even after this man was sued and the court ruled he must pay, he refused to do so and moved out of the state; a move he had been planning, obviously, for some time. He gave no reason for his refusal, but the course of events makes me reasonably certain that this man had an unconscious need to steal, but to do so would jeopardize the family too much. By various means, he conveyed to the boy that he should do it for him and as a reward he would get fatherly attention.

Case 3.—A 35 year old single woman was referred for treatment because of heavy drinking. There was no improvement, and there had not been with the preceding three therapists. I discovered that when the patient was without funds, her elderly, widowed and retired father bought her liquor. In fact, he often encouraged her to go to a neighborhood tavern. When I suggested to the family that this practice be discontinued, they replied that the father was very stubborn and could not be told what to do. Furthermore, the patient, being the youngest in a rather large sibship, was the father's old age consolation. She remained at home with him while all the others had left because life with the cantankerous old man was impossible. As long as the patient was a chronic drunkard, the father was kept busy with her and left the others alone. He did not visit them or ask to spend time in their homes with his grandchildren. In this manner the patient served to ward off a disruptive influence from the family.

Case 4.—A 52 year old university professor came for treatment because of drug addiction and alcoholism. After intensive therapy he improved greatly but his wife became depressed; the greater his improvement, the deeper her depression. Finally, she was so crippled by her depression that she had to begin therapy. It then appeared that she now had no excuse for feeling miserable and had to look within herself for an explanation of her unhappiness. Psychoanalysis discovered she was a masochist and that she had engaged in all kinds of perverse sexual practices which now the husband refused her. When he was doped up or drunk, or both, he would comply. She felt very guilty for all she did but her husband's mistreatment of her when inebriated, the various humiliations inflicted on her while in public with him and the agonies produced by his drug addiction served to displace the focus from her to him. She also considered his behavior a proper punishment for her own "sins." The punch line of the case came when she admitted having seduced him originally into taking drugs, which he could easily obtain in his job at the university laboratory. Making her husband a patient, in a way, kept the marriage and family together, since he refused to become an accomplice of her neurosis when well.

Discussion

These examples, condensed and telescoped as they are, portray not so much all the causes capable of producing mental illness, but perhaps a factor that tends to maintain the mental illness. The particular issue that I want to emphasize is the impact of the family on mental illness. Others will perhaps tell you about the impact of mental illness on the family, community or society. When a patient is seriously deranged, especially if his capacity to communicate with us is particularly deficient, we rely on the family to tell us about the patient and the milieu in which he developed. If we keep in mind that the patient is a symptom of the family, and that because of this relationship they need him, we will begin to sift carefully the information given by the family. By doing so we will avoid being misled by one or more members of the family and will not look at the patient as if he were living in a vacuum, rather than exposed to the strong influence that every family represents.

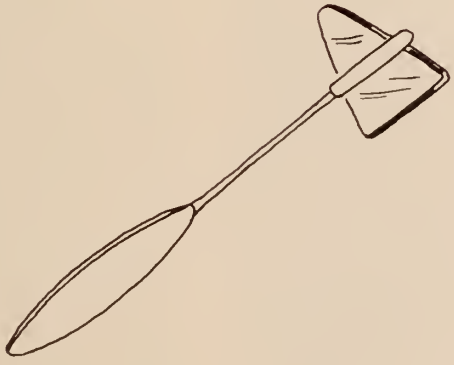
To repeat my point in stronger language: The members of the family are not the suffering victims of the patient's odd, queer, disagreeable behavior. Often it is the other way around. They have, if not caused directly, at least indirectly contributed to the illness of the patient. Certainly, once he is a patient, they do everything possible to keep him a patient. Do not misunderstand me, they are not consciously aware of this role and

neither is the patient. All their machinations are well rationalized; should one suggest otherwise, they would be indignant. What they do and have done is always "for the good of the patient."

Summary

The implications of my thesis are many. To state the most obvious: everybody is sick. In an academic sense this statement is true. In a pragmatic sense it is not. The equilibrium of the family is maintained for years with the help of the patient. It is when some factor forces the patient to engage in treatment that the upheaval starts. Does this mean that one should let the patient remain a patient for the sake of the family? Not at all. The psychiatrist and his team should help the family find a different solution, one that will not exact such a dreadful price as condemning a member of the family to being a patient. To do so may not always be easy because the family will tend to prefer their own method to the innovation brought by the psychiatrist, which forces the family to accept responsibilities that are not easy and to look at themselves as also sick. Many failures in treating patients are the result of the psychiatrist not bothering to remove the patient from the family's influence. It is against our social conventions to indict the family because we have been taught it is the pillar of society; but togetherness can be most damaging. The impact on the patient may result in his remaining a symptom of the family.

Dr. de la Torre, 2100 South Miami Avenue, Miami 33129.



Permanent Pervenous Endocardial Pacing In The Treatment Of Complete Heart Block

SOL CENTER, M.D., PHILIP SAMET, M.D.
and CESAR CASTILLO, M.D.

The clinical indications for electrical pacing of the heart in patients with complete heart block have been described by many investigators.[1-4] External stimulation of the chest wall was replaced by temporary pervenous right ventricular electrode pacing early in the development of miniaturized pacemakers.[5] The complications of external catheter pacing, especially infection, catheter displacement and lead fracture, led to the development of left ventricular epicardial lead implantation through a left thoracotomy incision.[2-4] Recently interest and attention have shifted back to pervenous catheter pacing utilizing a totally implantable catheter electrode and pacer unit. Siddons and Davies[6] and Bluestone et al.[7] have described their experiences with long term implantable pervenous pacing in a total of 49 patients. Lagergren et al.[8] reported good results in 25 patients. Chardack et al.[9] initially used permanent endocardial pacing only in the elderly and poor risk patients, but have more recently employed such pacing techniques in a wider spectrum of patients with complete heart block. The purpose of this report is to describe our experience in the treatment of complete heart block using a permanently implanted catheter electrode connected to a pulse generator implanted under the right breast. In the 12 month period between July 1, 1965 and July 1, 1966, 35 patients with complete heart block were treated in this fashion.

From the Department of Thoracic Surgery and the Section of Cardiology, Department of Medicine, Mount Sinai Hospital, Miami Beach, Fla.

Surgical Technique

Using 1% xylocaine for local anesthesia a 5.0 cm. incision is made 2.0 cm. above and parallel to the right clavicle. The external jugular vein is isolated, ligated proximally and looped distally. If the external jugular vein is not of adequate size, the internal jugular vein is exposed. A 6.0 cm. incision is then made just above the right breast and pacer pocket dissected out under the right breast on the pectoralis muscle.

Under image amplifier fluoroscopic control the catheter electrode is passed via the jugular vein into the right heart. The catheter is then passed into the right ventricle and the tip of the electrode wedged into the trabecular network of the right ventricular apex. Overenthusiastic wedging of the catheter in the apex may result in perforation of the heart. The stylet is then removed and the catheter firmly tied to the vein, leaving a minimal redundant loop of catheter in the right atrium. If a synchronous pacer is being implanted, a second catheter (detector) is passed through the same vein into the right atrium to pick up the atrial P waves. The electrode tip is placed in the area of maximal atrial voltage,

usually the upper atrium. Removal of the stylets is essential, leaving soft flexible catheters in place. The catheter, or catheters, are fixed to the soft tissues of the neck with 00 silk sutures. The patient can be turned to the lateral position on the fluoroscopy table to confirm the anterior position of the electrode tip.

The catheter is passed over the clavicle through a previously dissected subcutaneous tunnel to the chest wall incision where it is connected to the pulse generator and implanted beneath the right breast. Air embolism or hemorrhage has not been encountered to date. The patient's preoperative condition determines the need for temporary catheter pacing prior to permanent implantation. Postoperatively the patient is kept at strict bed rest for 48 hours. Prophylactic antibiotics are given for five days, but anticoagulants are not used. The patient is discharged on the eighth postoperative day. A record of catheter position is made by routine posteroanterior and lateral chest x-ray in the postoperative period (fig. 1).



Fig. 1.—Position of catheter electrode for fixed rate pacing.

Materials

Pacemaker systems manufactured by two companies have been implanted in the 35 patients. The Medtronic pacemaker and catheter were implanted in the first nine patients, the Cordis catheter and pacemaker in the following 26 patients. Both Cordis Ventricor (asynchronous pacemaker) and Atricor (synchronous pacer) deliver a negative pulse 2.0 msec. in duration, 6.5 volts in intensity, and 10.0 mamps in current flow. Mercury cell batteries supply the power and have an expected life of 30 to 42 months. Ventricor has a preset rate of 70 per minute. Atricor has a sensitivity of 0.5 millivolts, a minimum rate of 60 and a maximum rate of 125. The unipolar catheter electrodes are helical coil Elgiloy bonded to a cylindrical Elgiloy tip. The electrode is covered by silicone rubber tubing 0.1 inches in diameter. Within the coil is a stainless steel stylet used only during intracardiac manipulation of the catheter.

Results

Thirty-five patients, 13 women and 22 men, ranging in age from 65 to 89 years, have been treated by long term endocardial pacing for periods of one to 13 months. In 22 the indications for surgical treatment were frequent attacks of Stokes-Adams disease and in 13 a combination of these attacks and congestive heart failure. In two patients pacing had been done previously by epicardial electrodes. In one sepsis and subsequent rise in threshold necessitated the change. In the other a rise in impedence necessitated a change.

The patients are divided into two groups, (1) fixed rate pacing and (2) synchronous pacing.

Fixed Rate Pacemaker.—In 22 patients pacing has continued for periods of two to 13 months. Complications are listed in table 1. Repositioning of the catheter was necessary in four patients, two within 48 hours of implantation and two three to six weeks post implantation. In the two early cases the patients presented with intermittent ventricular capture and in the late cases with total loss of capture. One late catheter displacement was thought to be due to the use of absorbable suture as anchoring stitches in the neck. All four were successfully repositioned. Sepsis, electrode fracture, embolism, and pacer-induced arrhythmias have not occurred. Of four patients who have died, one died 24 hours postoperatively. Autopsy revealed a myocardial infarct of three to four days duration which had not been recognized prior to operation. The terminal event was ventricular tachycardia, not related to the pacemaker stimuli. One patient died four months postoperatively. The admission electrocardiogram revealed loss of ventricular capture by the pacemaker. At autopsy the catheter and Medtronic pacemaker (5.0 mamps) were in perfect working condition and it was assumed that a rise in threshold had occurred. Sudden death occurred in the third patient and an autopsy was not permitted. She was known to have episodes of atrial fibrillation with a rapid ventricular rate. The fourth patient died of a ruptured abdominal aortic aneurysm. In 18 patients the pacing is satisfactory and they are doing well (fig. 2).

Table 1.—Group I (Fixed Rate) — 22 Patients

Complications	Number of Patients
Catheter displacement	3
Unexplained threshold rise	1
Unit failure	0
Catheter fracture	0
Sepsis	0
Deaths	
Early (24 hours)	1
Late (3, 4 and 6 months)	3

Synchronous Pacer.—Thirteen patients have had right atrial and right ventricular catheters implanted and have been followed for five weeks to six months. Complications are listed in table 2. Repositioning of the catheter was necessary three times in two patients. One patient presented with intermittent capture of the ventricle. On fluoroscopic examination the ventricular catheter was in a proper position but excessive motion of the tip was observed. An attempt to wedge the catheter farther into the apex resulted in perforation of the heart. A second repositioning of the catheter into a new location was performed. Repositioning the catheter was necessary in another patient because of an unexplained threshold rise which took place after 21 days. The two pacer failures were due to faulty transistors. Perforation of the heart without loss of ventricular capture was diagnosed in one patient who complained of intermittent episodes of hiccoughs. Fluoroscopy revealed contractions of the diaphragm on the left side, synchronous with pacer stimuli. Withdrawal and repositioning the catheter

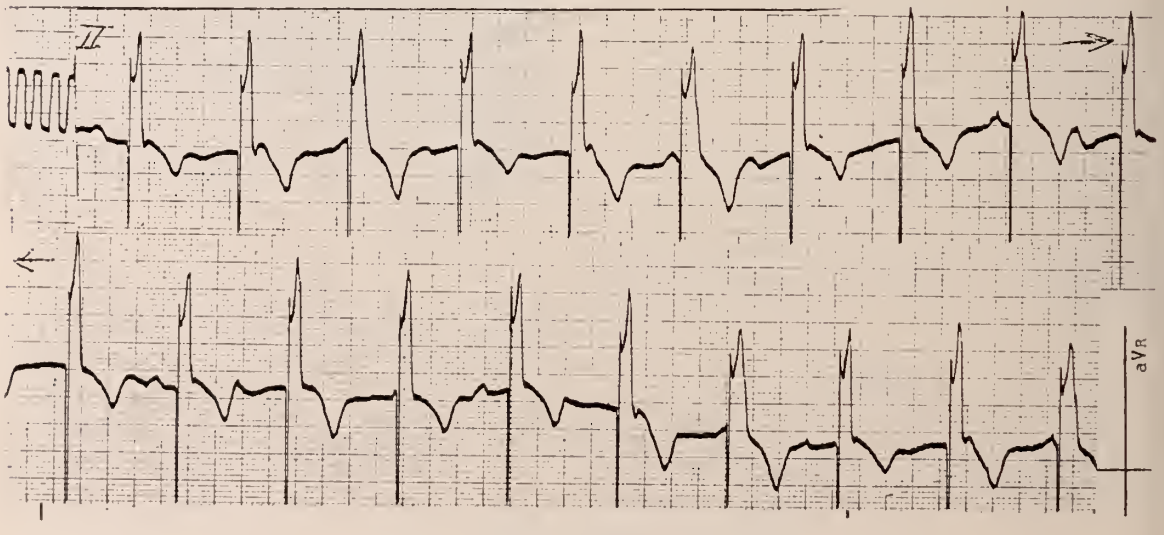


Fig. 2.—Pervenous fixed rate pacing.

Table 2.—Group II (Synchronous) — 13 Patients

Complication	Number of Patients
Catheter displacement	1
Unexplained threshold rise	1
Perforation of heart	2
Unit failure	2
Catheter fracture	0
Sepsis	0
Deaths	0

resulted in disappearance of the hiccoughs. Loss of synchrony has occurred in one patient who is pacing at a fixed rate of 60. In 12 patients pacing is synchronous at the present time (fig. 3).

Discussion

Long term endocardial pacing has proved to be a simple easily established reliable means of treating symptomatic heart block. Where drug therapy cannot maintain a pulse rate of 40, or prevent syncopal attacks or ventricular arrhythmias, implantation of a pacemaker is indicated. Congestive heart failure, with or without attacks of Stokes-Adams disease, is a definite indication for pacemaker implantation in heart block. Increasing cardiac output by increasing the ventricular rate has aided in the management of congestive heart failure.

Several types of pacemakers are, or will be, available for permanent implantation. The choices are (1) fixed rate, (2) demand and (3) synchronous pacemakers. The advantages of synchronous pacing have been presented elsewhere.[4] Atrial voltage has been measured in all patients and has been greater than 0.8 millivolts. By reducing the sensitivity of the pacer from 1.0 to 0.5 millivolts, synchronous pervenous pacing has been made feasible. The increased sensitivity of the pacer has not required unusual precautions. The endocardial electrode has not caused damage nor resulted in tricuspid insufficiency. Perforation of the myocardium has not proved to be a serious problem and is undoubtedly a result of overly vigorous catheter manipulation. Experience with Elgiloy[10] has proved it to be superior to other available metal alloys.

The most frequent problem faced by all investigators is catheter displacement. Fortunately, as experience is gathered the incidence of catheter displacement decreases. Displaced ventricular catheters can be repositioned under local anesthesia with relative ease. Improvements in electrode design are expected to decrease further the number of displacements and threshold problems. The failure rate of the Cordis units remains at the low level of 2% to 5%.

Summary

Thirty-five patients had permanent pervenous endocardial pacemakers implanted as the treatment of complete heart block. Operative mortality and morbidity have approached the zero mark. Fixed rate and synchronous pacing have proved to be reliable methods of electrically stimulating the heart. The only contraindication to pervenous synchronous pacing is atrial fibrillation. The advantages of the pervenous catheter pacemaker system have made it preferable to the thoracotomy epicardial system and catheter pacemakers are now recommended in every case of heart block requiring permanent pacer therapy.

Addendum: The ventricular catheter electrode design was modified in June, 1966. In the subsequent four months 15 pervenous pacemakers were implanted with only one catheter displacement.

References are available from the authors upon request.

Dr. Center, 637 Dupont Building, Miami 33131.



Fig. 3.—Pervenous synchronous pacing.

Hormone Interpretation Of Vaginal Smears

DANIEL O. HAMMOND, M.D.

Currently there is an increasing tendency to use sex hormones in diagnosing and treating disease, particularly in the female. This popularity has crystallized the need for simple and sensible guidelines in diagnosis and treatment. Endocrine evaluation is sophisticated and as a result involves expensive laboratory procedures. These are, unfortunately, necessary in the majority of cases of serious endocrine disease and cannot be dispensed with or short-circuited. A recent awareness, however, of the need of the aging female for hormones in some cases and the value of hormones in the treatment or prevention of cardiac disease, osteoporosis, degenerative changes of the genitourinary and gynecological systems and other conditions has forced physicians to seek easier, simpler, and less expensive laboratory aids. One of these is a well developed and poorly utilized technique of laboratory evaluation. The use of vaginal cytology smears for evaluating hormonal effects in the female has now become a most significant aid in the diagnosis and treatment of endocrine disease in the female. Since the male is not subject to such obvious cyclic activity of his hormone production and since no obvious target organ is as accessible and responsive as the female vaginal mucosa, this modality is not available for testosterone or other androgen evaluation in the male.

The vaginal mucosa is the most sensitive end organ demonstrating the effects of the steroids. This squamous epithelium is extremely sensitive to estrogens and to a less demonstrable extent progesterone, the newer progestogens and the adrenal steroids. It has been known for many years that the atrophic vaginal mucosa of the premenarchal or postmenopausal era can be sufficiently invigorated by estrogens to achieve its sexually active level of full maturation within a matter of days. Many cytologists now believe that the presence of progesterone and its analogues can be evaluated at least qualitatively from the same specimen; a few laboratory observers are less enthusiastic about evaluating these chemicals in this fashion.

Source of Cells

It is relatively easy to obtain a spread from the vaginal mucosa and stain it for the purposes of interpretation, utilizing the information gained thereby to diagnose and treat the patient's general endocrine status. Until recently, this type of interpretation was made on smears taken from the cervix. It is now well known that this is not the most satisfactory source of cells for this purpose, since the cell development of this cervical area is inevitably influenced by the infection that is so commonly present. Most cytologists prefer either a lateral vaginal wall smear or a smear from the posterior fornix. Cells from the posterior fornix have been exfoliated for an unknown period of time before removal for cytology evaluation. The unknown age of posterior fornix cells makes them ineligible for valid interpretation since their characteristics may be changed by aging, and the cyclic mucosal events are too dynamic to draw conclusions on cells some days old. It is now generally agreed that for endocrine evaluation, the smear should be taken from the upper lateral vaginal wall.

The mode of taking the smear is again a matter of discussion. Many cytologists think that it should be taken with a typical wooden spatula used for cancer detection. Since the phenomena to be studied are exfoliative in type, it would seem reasonable to get the cells that are exfoliating at the surface for this purpose. Currently, the consensus is that these smears should be taken with

a cotton tip applicator, preferably moistened with normal saline. Since the lower portion of the vagina and the vulva are also squamous epithelium, it is highly desirable to avoid contamination from these areas. The slides should be taken through an open speculum or with the cotton tip applicator inserted between two examining fingers in order to avoid contamination from the lower portion of the vagina and from the vulva. Once the smears are obtained, they may be rolled on a slide as in an ordinary Papanicolaou type examination. This slide may then either be immersed in alcohol for preservation purposes as in cancer testing or stained with any rapid staining technique. These methods have been developed recently in answer to the need for a less ponderous and time-consuming staining technique and include the rapid Shorr stain, the Rakoff stain, the Cresyl violet stain of Masin and Masin, the TMK 101 or Turk Schaeffer ink stain, developed by Sagiroglu at the Cancer Institute, and Quinaldine® or Pinacyanole®. The latter stain is a dye that is soluble in alcohol and may be applied to the slide without intermediate fixation of the slide, since the alcohol of the stain will serve as a fixative.

Cell Classification

The cells that are seen on a smear are the typical cells of the squamous epithelium and are divided into four classes. The most mature, with abundant clear cytoplasm and a pyknotic nucleus, is called the superficial karyopyknotic cell. Its cytoplasm may be pink or blue in polychrome stains. At present, there is no significance of a histochemical nature to this color differentiation although the acidophilic cytoplasm may be evidence of increasing maturity. Acidophilia may also appear in less mature cells due to infection and other influences. The term "cornified" has been applied to this superficial cell in older terminology; in addition, this term has also been applied to only the acidophilic superficial cell, as well as to less mature acidophilic cells. This error has occurred because the acidophilia has been mistakenly equated with keratinization, a metabolic process occurring almost exclusively in superficial cells and easily recognized by cytologists apart from the stain. The term "cornified," therefore, is a misnomer in general use and should no longer be used.

The less mature cells lower in the developmental scale are called intermediate cells; these are smaller than the superficial cells, have larger vesicular nuclei and largely stain basophilic with polychrome dyes. The lower cells of the intermediate class are called parabasal cells because they occur just above the basal layer and can be arbitrarily distinguished as having a nucleus one-third the size of the cell. The nucleus is large, usually pale and vesicular. The basal layer is a small cell with a very large nucleus; it is rarely seen on vaginal smears unless there is some ulceration of the mucosa.

Since the term "cornified" is not acceptable, the term "precornified" likewise cannot be definitely characterized for the same reason. Moreover, the lower limits of this so-called class cannot be defined and the term should be deleted.

These classes now can be characterized by an expression called the maturation index representing the three classes parabasal, intermediate, and superficial in this fashion: 0/0/0. The basal cells, so seldom seen, are grouped in the parabasal left hand class. This technique demonstrates maturation by a progression of cells from left to right, analogous to the Schilling count and other clinical indices. It must be distinguished from the femininity index, a scale popularized by a drug company and expressing maturity from right to left. The numbers represent the same classes but in different direction. Finally, there are supplementary characteristics like crowding or sheeting or plaques and folding or curling that may be used to evaluate additional characteristics of this smear.

The information to be gained from the vaginal endocrine smear is of several types. Primarily, the only objective evaluation beyond argument or contradiction is the absence or presence of estrogen influence. This judgment, of course, depends on the cell representation, with 100/0/0 being the expression of the castrate smear and 0/0/100 that of the fully proliferated spread. This can be read to some extent in a quantitative as well as qualitative fashion.

The effect of progesterone and its analogues is open to some discussion and differences of opinion; it is my opinion that by using serial smears the presence of these hormones can be satisfactorily evaluated.

The vaginal mucous membrane is the most sensitive barometer of steroid effect in the female body. It is possible to stimulate this area to full development with very small amounts of hormones

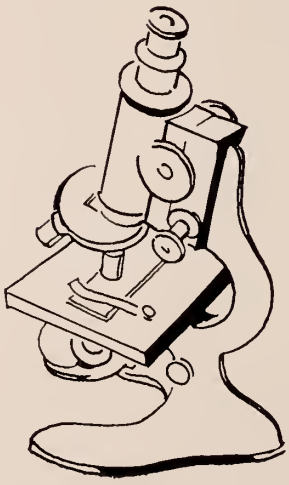
and to have the uterus and external genitalia remain little influenced by this dose level. It is also possible to overestimate the effect of any single quantity of drug, if one were to assume that the vaginal effects were quantitatively equal to the effects on other portions of the genitourinary tract. This would explain the persistence of the well proliferated smears years after the menopause and also would make any conclusions drawn from the vaginal mucosa findings alone subject to question. Any indicated manipulation, therefore, that would be based upon the vaginal smear alone would possibly be an error; the corollary would be that the vaginal smear must be used with other clinical symptoms and signs to treat the patient more effectively.

Once these characteristics are evaluated, the information can be extrapolated to the clinical state of the patient by utilizing known factors such as age, last menstrual period, physical findings and other information. Obviously, the same spread would mean different things in different patients and would have to be applied to the individual case. There are few, if any, specific smear types. The conditions helped by hormone evaluation are varied and include bleeding and infection problems in the newborn and the premenarchal era, dysfunctional bleeding states, fertility problems (including the time of ovulation and retrospective diagnosis of ovulation) and the hormone deficiency states of the perimenopausal era. In addition, the hormone-dependent conditions of the puerperium can be illuminated with this technique, including the hormonal support of early pregnancy, the possible diagnosis of biologic term, and the diagnosis of ruptured membranes by visualization of the "vernix" or more properly "fetal" cell. Responses to treatment in many of these conditions can also be evaluated by this parameter.

Summary

The diagnostic and therapeutic test described can be of value in any condition where female hormones play a diagnostic or therapeutic role. The vaginal endocrine smear is not a final or summary pathway of medical evaluation; it will assist, in a valuable manner, in the evaluation and care of the female endocrine patient.

▶ Dr. Hammond, 350 Northeast 15th Street, Miami 33132.



The School-Age Child With A Heart Murmur

RALPH SLONIM, M.D. and NORA B. OLDHAM, M.D.

What should the physician tell the parents of a child who has a heart murmur detected on a routine school or preschool examination? In terms of the number of patients, this is a major problem. The incidence of heart murmur detection in this age group has varied in large surveys from 20 to over 60%.[1,2] Obviously, not all of these children have heart disease.

In the Cardiac Clinic of Variety Children's Hospital, children with innocent murmurs make up a large proportion of the case load. This paper, a summary of our experience with such children, is presented in the hope of helping the family physician in his approach to one aspect of the common and sometimes difficult problem of distinguishing between the sick and the well.

Materials and Methods

The 268 patients seen in our clinic between October 1962 and July 1965 form the basis of this report. All patients were referred by other Variety Children's Hospital clinics, by the inpatient service or by practicing physicians throughout Florida. For purposes of this study a school-age child was defined as having reached his fourth birthday, but not his seventeenth. One hundred sixty patients were in this group, 86 boys and 74 girls. Each patient had a history taken and a physical examination performed by a pediatric resident, a standard twelve-lead electrocardiogram, and posteroanterior and lateral chest x-ray films. Each patient was also examined by an attending physician of the clinic.

Dr. Slonim is former director of Cardiac Clinic, Variety Children's Hospital, Clinical Instructor in Medicine, University of Miami School of Medicine.

Dr. Oldham is former director of Outpatient Department, Variety Children's Hospital, Clinical Instructor in Pediatrics, University of Miami School of Medicine.

Read before the Florida Medical Association, Ninety-Second Annual Meeting, Hollywood, May 13, 1966.

Criteria for benign murmurs were limitation to systole, blowing or musical quality, intensity not more than grade 4 (of 6) and no increase in intensity in the sitting position (table 1). Other criteria included a normal electrocardiogram and chest x-rays, absence of thrill, physiologic splitting of the second heart sounds, normal relationship of arm and leg blood pressures and absence of cyanosis.

Results

Of the 160 school-age patients, 21 did not have a heart murmur. Of the remaining 139, 85 (61%) had definitely benign murmurs and 12 had probably benign murmurs (table 2). Four patients had probable heart disease, and all of them had murmurs. Forty patients had definite heart disease, of whom 38 had murmurs. Of the 40 patients with definite heart disease, 18 had congenital heart disease, 13 had rheumatic heart disease, five had "idiopathic cardiomegaly," and one each had idiopathic pericarditis, muscular dystrophy heart disease, idiopathic hypertension and collagen disease with pericarditis. In 58 of the school-age patients with benign heart murmurs, the clinic record included a notation as to whether the murmur was audible over the carotid arteries in the neck. In 42 patients (73%) the murmur radiated to the neck, and in 16 it did not (table 3). Of the 108 children seen at less than

Table 1.—Criteria for Benign Murmurs

Systolic, blowing or musical
$\leqq$ grade 4 (of 6)
Not louder sitting
ECG and chest normal
No thrill
Normal splitting
Arm BP $\leqq$ leg
No cyanosis

Table 2.—Murmurs in School-Age Children

85	definitely benign
12	probably benign
4	probable heart disease
38	definite heart disease
139	school-age children with murmurs

Table 3.—Murmurs Radiating to Neck

42	(73%) murmurs radiated to neck
16	(27%) no neck radiation
58	(100%) benign murmurs

Table 4.—Murmurs in Children Under Age Four

20	definitely benign murmurs
10	probably benign murmurs
11	probable heart disease
55	definite heart disease
96	children under four years of age

four years of age, 12 had neither murmurs nor heart disease. Of the remaining 96, only 20 (21%) had definitely benign murmurs, and another 10 had probably benign murmurs (table 4). Eleven were thought to have probable heart disease. Forty patients had definite congenital heart disease, 11 had "idiopathic cardiomegaly," and two each had idiopathic pancarditis and glycogen storage disease. None of the patients in the younger group had rheumatic heart disease.

Discussion

What is a benign murmur? For many years the term "functional" was applied to murmurs believed to occur in the absence of valvular lesions or intracardiac shunts. Originally this term was used to describe heart murmurs which might occur in noncardiac disease states, such as anemia. Later the term was extended to mean a murmur occurring in a healthy person without heart disease, but this blurred the distinction between the sick and the well. The term "innocent murmur" was therefore coined to describe the noncardiac murmurs of healthy persons. Other semantic attempts in this area have divided murmurs into "physiologic" and "pathologic" groups. It has been pointed out that a murmur due to a minor valvular deformity would not be "functional," and although "innocent" it would still be "pathologic." In this study we have used the term "benign" in the sense of "innocent;" that is, a murmur which is not associated with significant valvular deformity or other intracardiac structural abnormality. Such a murmur might indeed be associated with an insignificant valvular deformity or septal defect in a few of our cases. It is clearly impossible to be absolutely certain that a murmur is not associated with any cardiac deformity without follow-up to autopsy; nor can we be sure that a minor anatomic variation will not eventually lead to cardiomegaly, heart failure or decreased life expectancy. We believe, however, that our criteria for benign murmurs give as much assurance in prediction as can reasonably be expected of clinical judgments. Cardiac catheterization, indicator-dilution curves and contrast studies might possibly produce greater accuracy of prediction. These methods were not readily available to us at the time of this study, and at any rate are not indicated in patients not sick enough to be candidates for cardiac operations.

Why is there such a difference in incidence of benign murmurs between the school-age group and the group under four years of age? One reason is selection. Many of the older patients were outpatients referred specifically for evaluation of murmurs heard on routine examination of apparently well children. In the younger group most of the patients were referred from inpatient services because of findings more indicative of serious disease, such as cyanosis, heart failure or cardiac enlargement on x-ray examination of the chest. Also, since older children are more cooperative and thus easier to examine, the benign murmurs, being usually quiet, are more likely to be heard in the older rather than the younger children, though their frequency might actually be similar. Luisada and associates[3] suggested another reason for the increased incidence of "benign" murmurs in older children. Based on autopsy studies showing minor rheumatic changes in heart valves in 20 to 60% of unselected cases, they suggested that subclinical forms of rheumatic fever, or perhaps other kinds of valvulitis, may produce definite but hemodynamically insignificant valve deformity in increasing numbers of patients as the years go by. An approach to answering this question depends, of course, on knowledge of the cause of benign murmurs. Although much speculation has been directed toward the origin of murmurs in general and benign murmurs in particular, a full discussion of these considerations is beyond the scope of the present report.

When, on routine examination, a school-age child has a heart murmur, what is likely to be its medical significance? Studies cited of unselected, apparently healthy school children have shown that a murmur is usually not a cause for alarm.

In fact, we believe that the physician who sees large numbers of school-age children and does not hear murmurs frequently is either seeing an unusual population or missing some murmurs. Even among a group of such children referred to a pediatric cardiology clinic specifically because of a heart murmur, 70% (97/139) had either definitely or probably benign murmurs.

What should be the physician's approach when such a murmur is detected? In our study we were able to arrive at a definite diagnosis of the presence or absence of heart disease in 84% (117/139) of these school-age children with a heart murmur on clinical grounds alone. That is, the history, physical examination, electrocardiogram and chest x-ray gave enough information, even in this already selected group, to identify the 16% who would require further studies or further follow-up to ascertain whether or not definite heart disease was present. These four studies, carefully performed and interpreted, should allow the clinician to identify the small proportion of unselected school-age patients with murmurs that need to be referred for specialized evaluation.

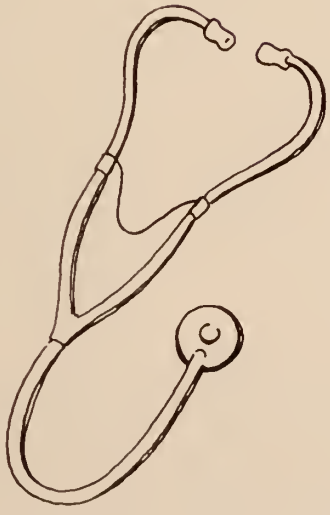
Summary

The purpose of this study was to assess the frequency and significance of heart murmurs in 160 school-age patients among 268 patients referred to a pediatric cardiology clinic over a 33 month period. Criteria for benign murmurs were limitation to systole, blowing or musical quality, intensity not more than grade four and no increase in intensity in the sitting position. Other criteria included normal electrocardiogram and chest x-ray, absence of thrill, normal splitting of the second heart sound, normal relationship of arm and leg blood pressures and absence of cyanosis. Of the school-age group (four to 17 years), 139 had murmurs. Eighty-five patients had definitely benign murmurs and 12 had probably benign murmurs. More than half of the benign murmurs radiated to the neck. Thirty-two had definitely pathologic murmurs and four had probably pathologic murmurs. Thus, in 84% (117/139) of school-age patients referred to a cardiac clinic because of a heart murmur, a definite diagnosis of the presence or absence of heart disease could be made on clinical grounds (history, physical examination, electrocardiogram and chest x-ray). It was concluded that probably 70% of such patients have benign murmurs.

▶ Dr. Slonim, 9090 Southwest 87th Court, Miami 33156.

References

1. Rauh, L. W.: Cardiac Murmurs in Children, Ohio State M. J. 36:973-974 (Sept.) 1940.
2. Gardner, J. H., and Keith, J. D.: Prevalence of Heart Disease in Toronto Children, Pediatrics 7:713-721 (May) 1951.
3. Luisada, A. A., et al.: Murmurs in Children: A Clinical and Graphic Study in 500 Children of School Age, Ann. Int. Med. 48:597-615 (Mar.) 1958.



Carcinoma Of The Vulva

DONALD MENZIES, M.D., and HARRY PRYSTOWSKY, M.D.

This report is concerned with 29 women referred to the University of Florida College of Medicine with a diagnosis of carcinoma of the vulva. The time interval was from January 1959 through July 1966. The purpose of this presentation is to establish certain requirements wherein carcinoma of the vulva can be changed from a disease with a bad prognosis and a horrible, prolonged terminal illness into a cancer with an excellent prognosis.

Epidemiologic Data

The patients varied in age from 40 to 84 years; the average was 58. Sixty-nine per cent were multigravida and nine had never been pregnant. Six of the patients were colored, and the remainder (79%) were white. Six (21%) had a family history of cancer. The average delay between appearance of symptoms and institution of appropriate therapy was 24 months, the range extending from 10 years to essentially no delay.

Symptoms

The most common complaint was pruritus vulvae. It occurred in 41% of the patients. The presence of a lesion was the initial problem in seven. Other symptoms were pain, bleeding, dysuria, discharge, and no complaint.

Pathology

The predominant pathologic lesion, epidermoid carcinoma, was present in 24 patients (83%). The lesions were two malignant melanomas and one each of basal cell carcinoma, Paget's disease with adenocarcinoma of apocrine gland origin, and superficial melanocarcinoma or Paget's disease without an underlying carcinoma. In eight patients other vulvar lesions were in five instances leukoplakia, in two condyloma and in one lichen sclerosis et atrophicus.

Five patients had malignant disease other than that of the vulva. Four had been treated previously for carcinoma of the cervix uteri. In this group, one instance of cancer of the breast, one of the urethral meatus, and one of thecoma of the ovary occurred. In two of these five patients, two other primary tumors had occurred. Hence, the incidence of associated malignant disease was 17%.

Therapy

Seven patients had received therapy prior to referral to our unit. Of this group five died of metastatic disease (71%); one is alive with known metastatic disease; one is a five year "cure." This last patient had a simple vulvectomy, for what we interpreted histologically to represent Paget's disease of the vulva.

Twenty-two patients were referred to us for primary therapy. Our approach to this lesion is surgical, that is, radical vulvectomy and bilateral groin dissection and pelvic lymphadenectomy. Recently we have modified the procedure—pelvic lymphadenectomy is omitted if all superficial nodes are free of tumor, including the uppermost node in the femoral canal. The operation is performed at one sitting, and two operating teams are utilized.

The extent of our primary therapy may be subdivided into three categories: (a) One patient was considered inoperable because of far advanced metastatic disease. She died of pulmonary emboli 23 days after admission to the hospital. (b) One patient with basal cell cancer

Dr. Menzies is Assistant Professor and Dr. Prystowsky is Professor and Chairman, Department of Obstetrics and Gynecology, University of Florida College of Medicine, Gainesville.

was treated with a wide local excision. One patient with malignant melanoma was treated with vulvectomy alone; subsequently, she required a local excision because of a recurrence, and she is now alive and well more than five years following initial therapy. One patient with a small epidermoid carcinoma was treated by vulvectomy alone; a more extensive surgical procedure was contraindicated because of her advanced age and poor cardiac status. Within seven months evidence of recurrence in the superficial inguinal nodes developed and she has subsequently undergone radical vulvectomy, bilateral groin dissection, and pelvic lymphadenectomy. (c) Eighteen patients (82%) received primary radical surgery. In 15, radical vulvectomy, bilateral groin dissection and pelvic lymphadenectomy were performed and in three, radical vulvectomy and bilateral groin dissection.

Evaluation of Lymph Nodes

Four instances (22%) of node metastasis occurred in these 19 patients subjected to radical surgery. Two patients had positive superficial nodes only and two had both superficial and deep pelvic node involvement. In the absence of superficial metastasis, we observed no instance of tumor involvement in the deep nodes.

Surgical Complications

Serious accidents occurred in four patients. One patient had a massive retroperitoneal hemorrhage two days postoperatively. One bled massively from a ruptured mycotic aneurysm of the left femoral artery 10 days after the operation. In one an acute myocardial infarct developed postoperatively. One patient had a cardiac arrest during the operation, and subsequently bilateral ureteral fistulas developed with loss of function of one kidney.

Analysis of Therapy

Of the 22 patients referred to us for primary therapy, 18 (82%) are now living. Four deaths have occurred: (a) One patient was considered inoperable because of widespread metastases and died shortly after admission. (b) One operative death occurred. (c) Two patients have subsequently died of metastases; in one, the tumor was unresectable at the time of the operation (superficial and deep nodes positive); in the other, nodes were negative at operation. It is to be emphasized that these results are of limited meaning, for the duration of follow-up has been short since the institution of therapy. Be that as it may, our data are not unlike those reported by others (table 1).[1,2]

Table 1.—Results—Invasive Carcinoma of the Vulva
University of Florida College of Medicine
January 1959 - July 1966

Therapy	No. of Patients	No. Alive
None or inappropriate	8	2 (25%)
Radical surgery	19	16 (84%)

Summary

If one can establish the principle of liberal use of vulva biopsy, a great deal of the problem of vulvar carcinoma would disappear since the early lesion can be treated with excellent results. The diagnostic problem is to get these elderly women to present chronic vulvar lesions to the physician and to convince the physician that he must substitute local anesthesia office biopsy for useless local applications. He must also be convinced that effective surgical treatment in the form of radical vulvectomy in combination and in continuity with bilateral superficial groin and deep pelvic lymph dissections as a single stage procedure is the preferred method of therapy and that surgery of this magnitude can be carried out with a low mortality rate, even in this elderly, theoretically poor risk group of patients. These are the simple requirements, and the time has come to accept these conclusions.

References

1. McKelvey, J. L.: Carcinoma of the Vulva, Clin. Obst. & Gynec. 1:1101-1107 (Dec.) 1958.
2. Green, T. H.: Radical Vulvectomy, Clin. Obst. & Gynec. 8:642-658 (Sept.) 1965.

Dr. Menzies, University of Florida College of Medicine, Gainesville 32601.



President's Page

Ninth Annual County Medical Society Presidents and Secretaries Conference

During the last weekend in January the Ninth Annual Conference of County Medical Society Presidents and Secretaries was held in Orlando. This gathering of the leaders of our component societies was begun in 1958 when Dr. Jere Annis was president of FMA. We should all thank him for beginning this most important and worthwhile session.

Subjects of timely significance to our Association and to our physicians are thoroughly discussed by persons knowledgeable in their topics. The county society leaders thus become more conversant with these problems and with suggested solutions or recommendations, and they can take this information back to their members. Also, the officers of FMA have the opportunity to meet and know the officers of the county societies. A spirit of camaraderie and cooperation results which would not otherwise be possible. Our Association and our state are too big for the officers to be able to visit each county society.

This past conference we discussed the state legislative program; scientific activities; Heart Disease, Cancer and Stroke regional programs; Relative Value Studies; Workmen's Compensation; Public Law 89-97, and programs and problems of county medical societies and specialty societies. Two workshops were held prior to the conference, one on state medical legislation and one on medicine and religion.

Our Association members and officers will continue to be better informed and more effective as a result of these conferences. Our thanks again to those who began them. I have thoroughly enjoyed and benefited from each one that I have attended.

George S. Palmer

New from Du Pont

Symmetrel®

(Amantadine HCl)

The first oral chemical virostat for the prevention of influenza A_2



Influenza virus
Protein shell enclosing the core of nucleic acid (RNA)—artist's representation

The incidence of influenza A_2. In this country, where influenza is one of the leading causes of morbidity, influenza A_2 (Asian) continues to be a serious medical problem. In 1957 influenza A_2 was responsible for approximately 40,000 excess deaths in a three-month period. Since that year the most prevalent influenza virus has been A_2 (Asian).

What is Symmetrel®? "Symmetrel" (amantadine HCl) is a new synthetic chemical which acts as a molecular barrier to virus penetration. It provides for the first time specific oral medication for the prevention of respiratory infections caused by influenza A_2 (Asian) viruses—an entirely new approach in preventive medicine.

For prescribing information, see last page of this presentation

What Symmetrel® (amantadine HCl) means to you

...the first and only oral chemical agent to prevent influenza A_2 (Asian).

...not a vaccine or antibiotic, but a new synthetic chemical unrelated to any other chemotherapeutic agent.

...unique mode of action: prevents virus penetration of the host cell without affecting vital cell functions.

...specifically active against all influenza A_2 viruses tested to date.

...not indicated for the prevention of influenzal or respiratory illness other than influenza A_2 or for the treatment of established disease.

...does not interfere with normal antibody response; acts in concert with pre-existing antibody.

What Symmetrel® means to your patient

...possible immediate influenza A_2 protection when taken following suspected contact.

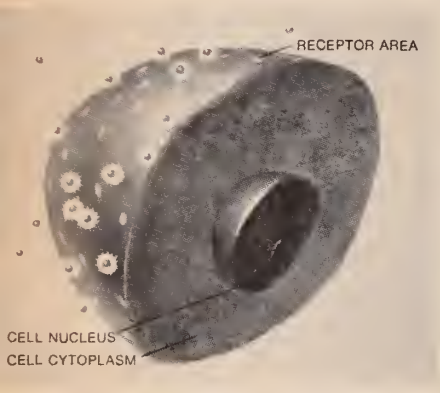
...may be particularly useful during outbreaks or epidemics and for high-risk patients in whom the occurrence of influenza A_2 is especially hazardous.

...a high degree of safety in clinical use.

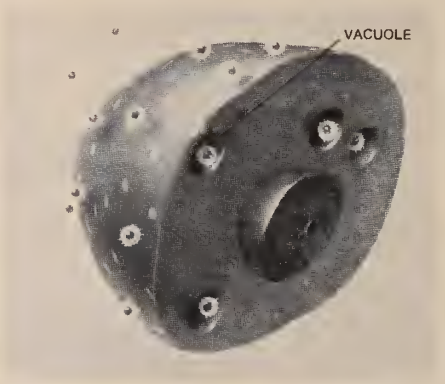
...simple once daily or b.i.d. dosage.

The mode of action of Symmetrel®

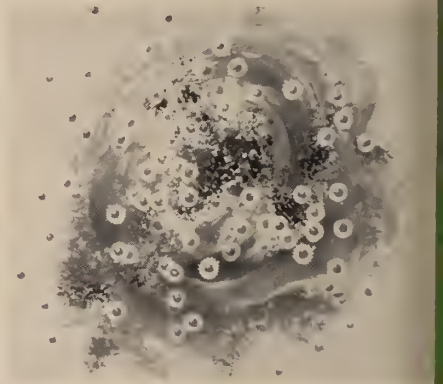
How the influenza virus invades and destroys the untreated cell



1 Viruses outside the cell attach themselves to specific cell receptor areas

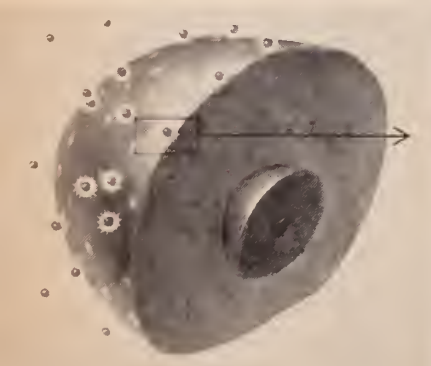


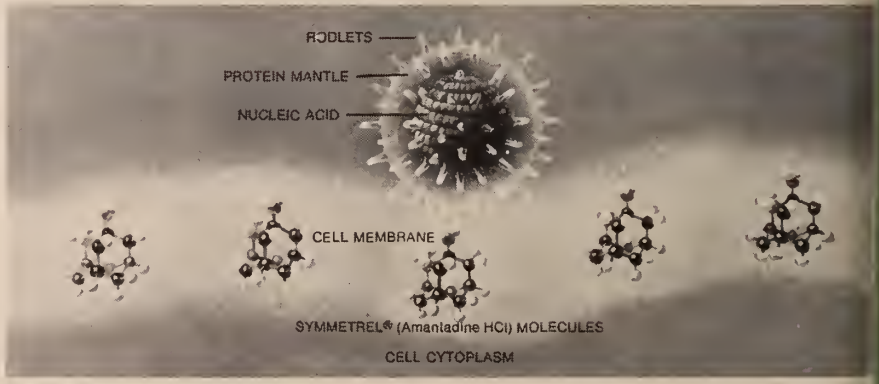
2 The virus is incorporated into a vacuole within the cell. From this vacuole the virus nucleic acid passes into the cell cytoplasm



3 The virus nucleic acid then directs the cell to produce both new virus nucleic acid and virus protein coat material which aggregate to form new virus particles. This process leads to the release of new virus particles and eventual destruction of the cell

How Symmetrel® (Amantadine HCl) prevents virus invasion[1]





Our current knowledge leads us to believe "Symmetrel" acts as a molecular barrier to influenza virus penetration. Shown here in a greatly enlarged section, "Symmetrel"—located at the cellular membrane—effectively prevents (blocks) virus penetration. Thus, "Symmetrel" does not directly destroy the virus particle but acting as a virostat prevents the cycle of virus penetration, virus replication, and cell destruction that is characteristic of virus invasion of animal cells (tissue). *Artist's conception based on current scientific knowledge.*

1. "Mode of Action of the Antiviral Activity of Amantadine in Tissue Culture", Hoffmann, C. E.; Neumayer, E. M.; Haff, R. F.; and Goldsby, R. A., Journal of Bacteriology *90*,623 (1965).

Safety of Symmetrel® Confirmed. When used as indicated, is generally well tolerated. No kidney, liver, bone marrow, or hematological disturbances have been observed.

Prescribing Information

Indications: "Symmetrel" is indicated for the prevention (prophylaxis) of influenza A_2 in persons of all age groups. Early use is recommended, preferably before or as soon as possible after actual or suspected contact with individuals suffering from influenza A_2. "Symmetrel" should especially be considered for high influenza-risk patient groups such as those suffering from chronic debilitating diseases and elderly persons.

Contraindications: Not indicated for the prevention of influenzal or respiratory illness other than influenza A_2 or for the treatment of established disease.

Warnings: Administration to patients with central nervous system disease, particularly geriatric patients with cerebral arteriosclerosis, and patients with a history of epilepsy or other "seizures," requires strict observation for possible untoward effects (see Adverse Reactions). Patients taking psychopharmacologic drugs, central nervous system stimulants, or alcoholic beverages should be observed for possible evidence of intolerance. Those patients who experience central nervous system effects or blurring of vision should be cautioned against driving or working in situations where alertness is important.

No teratogenic effects have been seen in reproductive studies in rats and rabbits. Studies in pregnant women have, however, not been done and use of this drug in women of childbearing age should be undertaken only after weighing the possible risks to the fetus against benefit to the pregnant patient. It should not be administered to nursing mothers since it is not known whether the drug is secreted in the milk.

Precautions: Ineffective against bacterial infections. Patients should be observed for idiosyncratic reactions as with all new drugs. Geriatric patients with pre-existing serious medical illnesses with mental or physical deterioration should be followed carefully medically while taking "Symmetrel." (See Adverse Reactions.)

Adverse Reactions: With higher than indicated doses manifestations of central nervous system effects such as nervousness, insomnia, dizziness, lightheadedness, drunken feeling, slurred speech, ataxia, inability to concentrate and some psychic reactions including depression and feelings of detachment were seen. Occasional blurred vision was reported at higher doses. Some of the milder and less pronounced symptoms above have been reported in a small number of patients taking the recommended dosage of 200 mg per day. Those were mostly transient and disappeared with continued administration of the drug. Some geriatric patients developed paranoid or hallucinatory behavior and became unmanageable while taking 200 mg daily. Medically unselected seriously deteriorated geriatric patients showed poor clinical tolerance after several weeks of daily dosing with 200 mg per day. One elderly patient with a history of prior cerebrovascular accident developed visual hallucinations and grand-mal convulsions while on drug at 800 mg per day. Some cases of dry mouth, gastrointestinal upset and skin rash and rarely, tremors, anorexia, pollakiuria, and nocturia have been also reported.

Safety: When used as indicated, is generally well tolerated. No kidney, liver, bone marrow, or hematological disturbances have been observed.

Dosage: *Adults:* Two 100 mg capsules (or 4 teaspoonfuls of syrup) as a single daily dose or the daily dose may be divided into one capsule of 100 mg (or 2 teaspoonfuls of syrup) twice a day.

Children: 1 yr.—9 yrs. of age: Calculate total daily dose on the basis of 2 mg to 4 mg per pound of body weight per day (but not to exceed 150 mg per day). Daily dose, given as the syrup, should be given in 2 or 3 equal portions.

9 yrs.—12 yrs. of age: Total daily dose 200 mg given as one capsule of 100 mg (or 2 teaspoonfuls of syrup) twice a day.

How Supplied: *Capsules:* Bottles of 100. Each red, gelatin capsule contains 100 mg amantadine HCl.
Syrup: Bottles of 1 pint. Each 5 ml (1 teaspoonful) contains 50 mg amantadine HCl.

DUPONT

Symmetrel®

(Amantadine HCl)

A molecular barrier to virus penetration

arrest diarrhea

in • gastroenteritis • acute infections



LOMOTIL®

Each tablet and each 5 cc. of liquid contains:

diphenoxylate hydrochloride . . . . . 2.5 mg.

(Warning: May be habit forming)

atropine sulfate . . . . . 0.025 mg.

Effectiveness: Lomotil possesses a unique degree of effectiveness in both acute and chronic diarrhea.

Convenience: Lomotil is supplied as small, easily carried, easily swallowed tablets and as a pleasant, fruit-flavored liquid.

Versatility: The therapeutic efficiency, safety and convenience of Lomotil may be used to advantage alone or as adjunctive therapy in diarrhea associated with:

- **Ulcerative colitis**
- **Acute infections**
- **Irritable bowel**
- **Regional enteritis**
- **Drug therapy**
- **Food Poisoning**
- **Functional hypermotility**
- **Malabsorption syndrome**
- **Ileostomy**
- **Gastroenteritis and colitis**

Dosage: For correct therapeutic effect—Rx correct therapeutic dosage. The recommended initial daily dosages, given in divided doses, until diarrhea is controlled, are:

Children: Age	Total Daily Lomotil Dosage	Lomotil Liquid Dosage (Each teaspoonful [4 cc.] contains 2 mg. of diphenoxylate HCl)
3-6 months	3 mg.	½ tsp. 3 times daily
6-12 months	4 mg.	½ tsp. 4 times daily
1-2 years	5 mg.	½ tsp. 5 times daily
2-5 years	6 mg.	1 tsp. 3 times daily
5-8 years	8 mg.	1 tsp. 4 times daily
8-12 years	10 mg.	1 tsp. 5 times daily

Adults: 20 mg. (2 tsp. 5 times daily or 2 tablets 4 times daily) Based on 4 cc. per teaspoonful. Maintenance dosage may be as low as one-fourth the initial daily dose.

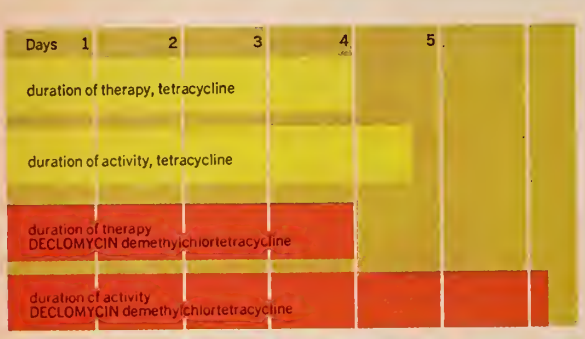
Precautions: Lomotil, brand of diphenoxylate hydrochloride with atropine sulfate, is a Federally exempt narcotic preparation of very low addictive potential. Recommended dosages should not be exceeded. Lomotil should be kept out of reach of children since accidental overdosage may cause severe respiratory depression. Lomotil should be used with caution in patients with impaired liver function and in patients taking addicting drugs or barbiturates. The subtherapeutic amount of atropine is added to discourage deliberate overdosage.

Side Effects: Side effects are relatively uncommon but among those reported are gastrointestinal irritation, sedation, dizziness, cutaneous manifestations, restlessness, insomnia, numbness of extremities, headache, blurring of vision, swelling of the gums, euphoria, depression and general malaise.

why wonder about a drug

when you know

DECLOMYCIN®
DEMETHYLCHLORTETRACYCLINE
produces 1-2 "extra" days' activity



1-2 "extra" days' activity
after the last dose to protect against relapse

one 300 mg tablet b.i.d.
or
one 150 mg capsule q.i.d.

Effective in a wide range of everyday infections — respiratory, urinary tract and others — in the young and aged — the acutely or chronically ill — when the offending organisms are tetracycline-sensitive.

Contraindication — History of hypersensitivity to demethylchlortetracycline.

Warning — In renal impairment, usual doses may lead to excessive systemic accumulation and liver toxicity. Under such conditions, lower than usual doses are indicated and, if therapy is prolonged, serum level determinations may be advisable. A photodynamic reaction to natural or artificial sunlight has been observed. Small amounts of drug and short exposure may produce an exaggerated sunburn reaction which may range from erythema to severe skin manifestations. In a smaller proportion, photoallergic reactions have been reported. Patients should avoid direct exposure to sunlight and discontinue drug at the first evidence of skin discomfort.

Precautions and Side Effects — Overgrowth of nonsusceptible organisms may occur. Constant observation is essential. If new infections appear, appropriate measures should be taken. Use of demethylchlortetracycline during tooth development (last trimester of pregnancy, neonatal period and early childhood) may cause discoloration of the teeth (yellow-grey-brownish). This effect occurs mostly during long-term use but has also been observed in short treatment courses. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment. Side reactions include glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis and dermatitis. If adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy. Anaphylactoid reactions have been reported.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products.

Capsules: 150 mg; *Tablets:* film coated, 300 mg, 150 mg and 75 mg of demethylchlortetracycline HCl.

LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York
419.6—4075

Lederle



For he's a jolly good fellow



But what does he think?



Many overweight patients can benefit from the appetite control provided by the sustained anorexigenic-tranquilizing action of BAMADEX SEQUELS: anorexigenic action of amphetamine; tranquilizing action of meprobamate; prolonged action through sustained release of active ingredients.

Bamadex® Sequels®

DEXTRO-AMPHETAMINE SULFATE (15 mg.) SUSTAINED RELEASE CAPSULES
WITH MEPROBAMATE (300 mg.)

to help establish a new dietary pattern

Contraindications: Dextro-amphetamine sulfate: in hyperexcitobility and in agitated prepsychotic states. Previous allergic or idiosyncratic reactions to meprobamate.

Precautions: Use with coution in patients hypersensitive to sympathamimetic compounds, who have coronary or cardiovascular disease, or are severely hypertensive.

Dextro-amphetamine sulfate: Excessive use by unstable individuals may result in psychological dependence.

Meprobamate: Careful supervision of dose and amounts prescribed is advised, especially for patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g. alcoholics, former addicts, and other severe psychaneuratics, has been reported to result in dependence on the drug. Where excessive dosage has continued for weeks or months, reduce dosage gradually. Sudden withdrawal may precipitate recurrence of preexisting symptoms such as anxiety, anorexia, or insomnia; or withdrawal reactions such as vomiting, ataxia, tremors, muscle twitching and, rarely, epileptiform seizures. Should meprobamate cause drowsiness or visual disturbances, reduce dosage and avoid operation of motor vehicles, machinery or other activity requiring alertness. Effects of excessive alcohol consumption may be increased by meprobamate. Appropriate caution is recommended with patients prone to excessive drinking. In patients prone to both petit and grand mal epilepsy meprobamate may precipitate grand mal attacks. Prescribe cautiously and in small quantities to patients with suicidal tendencies.

Side Effects: Overstimulation of the central nervous system, jitteriness and insomnia or drowsiness.

Dextro-amphetamine sulfate: Insomnia, excitability, and increased motor activity are common and ordinarily mild side effects. Confusion, anxiety, aggressiveness, increased libida, and hallucinations have also been observed, especially in mentally ill patients. Rebound fatigue and depression may follow central stimulation. Other effects may include dry mouth, anorexia, nausea, vomiting, diorrheo, and increased cardiovascular reactivity.

Meprobamate: Drowsiness may occur and can be associated with ataxia; the symptom can usually be controlled by decreasing the dose, or by concomitant administration of central stimulants. Allergic or idiosyncratic reactions: maculopapular rash, acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever, transient leukopenia. A case of fatal bullous dermatitis, following administration of meprobamate and prednisolone, has been reported. Hypersensitivity has produced fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, stomatitis, proctitis (1 case), anaphylaxis, agranulocytosis and thrombocytopenic purpura, and a fatal instance of aplastic anemia, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity, usually after excessive dosage. Impairment of visual accommodation. Massive overdosage may produce drowsiness lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse.

Lederle

LEDERLE LABORATORIES
A Division of American Cyanamid Company,
Pearl River, New York

695-6



Photo professionally posed

Mike expects a penicillin injection. He's about to be pleasantly surprised.

His physician is going to prescribe an oral penicillin —PEN•VEE® K (potassium phenoxymethyl penicillin). It's usually so rapidly and completely absorbed that therapeutic serum levels are produced in 15 to 30 minutes. Higher serum levels generally last longer than with oral penicillin G.

Indications: Infections due to pathogens susceptible to oral penicillin G. Prophylaxis of rheumatic fever in patients with previous history of the disease.

Precautions: Skin rash, symptoms resembling those of serum sickness, or other manifestations of penicillin-allergy may occur. Measures for treating anaphylaxis should be readily available: epinephrine, oxygen and pressor drugs for relief of immediate allergic reactions; antihistamines and corticosteroids for delayed effects. Penicillin may delay or prevent the appearance of primary syphilitic lesions. Patients with gonorrhea who are suspected of concurrent syphilitic infections should be tested serologically for at least 3 months. Where lesions of primary syphilis are suspected, dark-field examination should precede use of penicillin. As with other antibiotics overgrowth of nonsusceptible organisms may occur; if so, discontinue and take appropriate measures. Treat β-hemolytic streptococcal infections with full therapeutic dosage for at least 10 days to prevent development of rheumatic fever or glomerulonephritis.

Contraindications: Infections caused by nonsusceptible organisms; history of penicillin sensitivity.

Composition: Tablets—125 mg. (200,000 units) and 250 mg., (400,000 units); Liquid—125 mg. (200,000 units) and 250 mg. (400,000 units) per 5 cc. Wyeth Laboratories Philadelphia, Pa.

ORAL **PEN·VEE® K**
(potassium phenoxymethyl penicillin) Wyeth



Good Old Doc Is Not Dead

Three faces wears the doctor: when first sought
An Angel's; and a god's the cure half-wrought;
But when, the cure complete, he seeks his fee,
The Devil looks less terrible than he.

Goltzius (1558-1616)

God and the doctor we alike adore
But only when in danger, not before;
The danger o'er, both alike are requited,
God is forgotten, and the doctor slighted.

Anonymous–England–about 1600

When one's all right, he's prone to spite
The doctor's peaceful mission;
But when he's sick, it's loud and quick
He bawls for a physician.

Eugene Field (1850-95)

Good old Doc is dead.

Frank G. Slaughter (1966)

"It is in accordance with the oldest literary traditions that doctors should be involved in the endless charges brought by malcontents against established institutions, by the frivolous-minded against anything serious, by writers against science, by the ignorant against any subjects they find hard to understand, and finally by the sick or born grumblers against men who heal them slowly or incompletely or who appear to tend them roughly and automatically rather than with sympathy. These have been the subjects of discord since time immemorial.

"If the medical profession were able to attain all its own goals, or simply to keep all its own promises; if doctors were all infallible and personally irreproachable, their methods perfect, and their disinterestedness obvious—then medical science would be a sacred, an almost holy thing, and writers and artists would be deprived of a fine subject on which to exercise their talents."

So wrote Henri Mondor in his introduction to the collection of drawings by Honore Daumier entitled Doctors and Medicine. I have never heard it said better. Good old Doc is no more dead today than he was when Goltzius painted his pictures, than when the anonymous Englishman made his observations or when Daumier painted his caricatures. How much more interesting it is, though, to write about the cowardly James Madison who ran from the British soldiers rather than the great intellect who largely conceived our Constitution or to tell about George Washington's running battles with his mother rather than the many accomplishments of the Father of this nation. Harpooning the dignified, the respected and the prominent has always been great fun, and in this respect doctors have always been fair game. The recent University of Chicago survey, repeating a similar survey made some 20 years ago, showed again that the most respected of all professions is still the medical profession; more respected than Supreme Court justices, than lawyers, than astronauts, than you name it. The nature of medical practice of necessity changes, but the doctor's reason for being is the rendering of *professional service*. The key word in that phrase is service, and that this is recognized by the public and doctors alike accounts for the medical profession's still being at the top of the

list of the most honored professions despite the derogatory assaults which are occasionally made upon it.

A doctor is a creature of the age that produces him. The horse and buggy doctor practiced horse and buggy medicine on horse and buggy patients. The more enlightened present day doctor practices more enlightened medicine on more enlightened patients. The same enlightened patient who remembers with nostalgia the good old horse and buggy doctor would not tolerate horse and buggy medicine by his present doctor. This does not mean that Good Old Doc is dead. It simply means that Good Old Doc has traded good old Dobbin for 300 up front and four on the floor and in his patient's interest he no longer travels or thinks or acts at the pace of a horse drawn buggy.

Some years ago the late Dr. Hamilton Holt, for many years president of Rollins College, in discussing the influence of a profession on a man's life, said, "For a number of years I have had the opportunity of observing many young people mature. I think my own profession, journalism, is the most broadening; the practice of law, the most intellectual; the ministry, the most uplifting; but the practice of medicine is the most ennobling. Most medical students are a rather rowdy lot; and by the time they have practiced medicine for forty years they are pretty fine people."

As one who has spent more than half his lifetime in the practice of medicine, I sometimes wonder about our present crop of new doctors. When I compare them with my contemporaries of 25 years ago, we don't do so well. They are considerably better educated, more attuned to the times and certainly as well-motivated as their predecessors of a generation ago. The practice of medicine does not make any doctor good, but, as Dr. Holt observed, it makes most doctors better. In light of the times in which he practices, the present day doctor is responding to the challenges he faces, as well, if not better, than did his father and grandfather.

If Good Old Doc is dead then All Hail Good New Doc who is going about his business of bringing to more people than in all history the finest medical care the world has ever known.

Robert E. Zellner, M.D.
Orlando

Treatment of Angina Pectoris

The relief of pain in chronic anginal syndrome is still an important facet in the management of ischemic heart disease. As long as this is true there will remain a place for nitroglycerin, and

See scientific article, page 116

search will continue to be made for improved or better drugs of similar benefit. Such a search is discussed by Dr. Martin Belle. It is important to evaluate this recent addition to the list—prenylamine lactate (Segontin).*

Nitroglycerin probably does not save lives, prevent significant ischemia or prevent myocardial infarction. It is doubtful that it slows up the progress of ischemic heart disease. It still has a place, and so do other drugs which in any way make life more tolerable or rewarding for the person with this disease, provided there are no harmful or overriding side effects.

In his analogy, Dr. Belle includes in the list of those patients included in the "effective group" patients with "coronary insufficiency and/or infarction" and one who died. This is good because it helps us keep clearly in focus the purpose for which prenylamine lactate is being tried. This purpose is the relief of pain in chronic ischemic heart disease. There should be no claim for improved prognosis or help in the prevention of the various causes of significant morbidity in coronary artery disease.

Side effects of prenylamine lactate are described and seem to be related to the amount of the drug used. These include lethargy, nausea and vomiting. Of the 54 patients described, side effects were noted in 12 and in 16 the drug was not effective.

In this group of 54 patients, a significant number complained of less frequent attacks of

*Segontin, Lloyd Brothers, Inc.

anginal pain, and the drug was successfully substituted for some of the nitroglycerin tablets the patients had been taking. This is a favorable comment on this drug.

Pain in anginal syndrome is so variable and so affected by environmental factors that it is difficult to evaluate the effectiveness of a drug in controlling such a subjective complaint. The attitude of people around the patient, including his physicians, can often have considerable effect upon the frequency of attacks of pain and the number of nitroglycerin pills taken. I find it difficult to separate the effectiveness of Dr. Belle himself from the effectiveness of the medication.

Prenylamine lactate deserves continued trial, and if its side effects do not outweigh its advantages over nitroglycerin, then in time it may well join the ranks of effective medication. Until better means are found to improve coronary circulation, to reduce heart work or to aid the myocardium to compensate more effectively to diminished oxygen supplies, there will remain a place for nitroglycerin and allied drugs.

Franz Stewart, M.D.
Miami

The Hillsborough County Demonstration Project

A demonstration project in the implementation of the provisions of Title XIX using the Florida Medical Foundation for utilization review and quality control will begin in Hillsborough County February 1, 1967.

Title XIX of the Social Security Amendments of 1965 requires states to maintain a program of high quality health care for welfare recipients and needy sick and adequately compensate the providers of services in order to qualify for federal participation in the costs.

The minimum acceptable program by July 1, 1967 must provide for all categorical welfare recipients the five basic services of:

(1) inpatient hospital services
(2) outpatient hospital services
(3) other laboratory and x-ray services
(4) skilled nursing home services
(5) physicians' services, whether furnished in the office, the patient's home, a hospital, a skilled nursing home or elsewhere.

The State Welfare Board and State Board of Health Advisory Committee on Hospital Service for the Indigent instructed by the 1965 Florida legislature to prepare a detailed program and budget for implementation of Title XIX for presentation to the 1967 Florida legislature has recommended providing the five basic services through the insurance intermediaries of Title XVIII A and B.

Supplementary Medical Insurance (Medicare of Title XVIII B) has been purchased by the state for all aged welfare recipients. When the state adopts Title XIX, however, the deductibles and coinsurance (initial annual $50 and 20%) must also be paid by the state program and the same medical benefits must be made equally available to all other welfare recipients (blind, disabled and families with dependent children).

In order to demonstrate the effectiveness of implementing Title XIX through insurance intermediaries with utilization review and quality control by a foundation of the medical association, a project for use of this method has been proposed for Hillsborough County beginning February 1, 1967. Such a demonstration project has been approved by Hillsborough County Hospital and Welfare Board, State Welfare Board, State Cabinet (Budget Commission) and U. S. Department of Health, Education, and Welfare.

The Hospital and Welfare Board will deposit 24% and the U. S. Department of Health, Education, and Welfare 76% of the estimated cost for six months ($300,000) into a state trust fund. The State Welfare Department will issue a certifying card to each welfare recipient in Hillsborough County in the categories of Aged, Blind and Permanently Disabled (about 8000 persons). Physicians in Hillsborough County who wish to participate in the medical care of these

welfare recipients and receive compensation from the trust fund must sign an agreement with the Florida Medical Foundation (only doctors of medicine) or Blue Shield (nonparticipating physicians in the foundation and osteopaths) permitting 20% of the usual and customary charge to be held in escrow by either the Foundation (for participating physicians) or Blue Shield (for nonparticipating physicians).

After February 1, 1967, physicians rendering medical services in the home, office or hospital to these eligible recipients may bill the insurance carrier (Blue Shield) on the medicare assignment form (Social Security form 1490). The physician will receive 80% of the usual and customary charge (no deductible will be imposed) and the other 20% will be held in escrow by the Florida Medical Foundation or Blue Shield. If the trust fund is exhausted by payments prior to end of the contract, subsequent payments will be made from the escrow reserves. At the end of the contract, the remaining escrow account will be distributed to the vendors of services pro rata.

The Florida Medical Foundation will initiate measures for utilization review through the existing Blue Shield and county medical society insurance review committees and for quality control through the state and county medical societies.

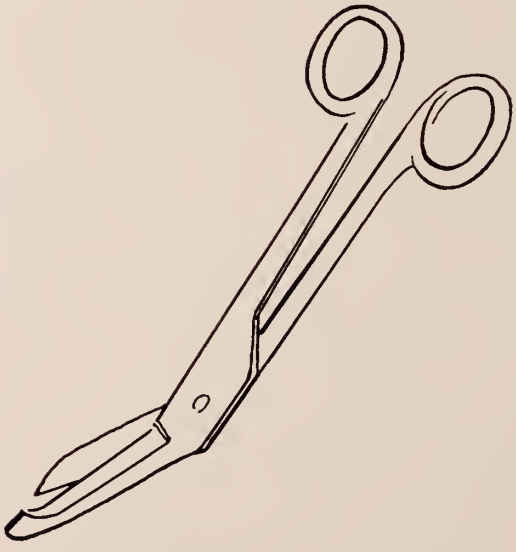
In addition, the $20 monthly ceiling on prescriptions for welfare recipients will be removed for Hillsborough County welfare recipients and the $20 deductible and 20% coinsurance for outpatient costs imposed under Title XVIII A will be paid.

As the demonstration project proceeds, studies will be made of the effectiveness of implementing Title XIX through the insurance intermediaries and medical foundation, patterns of utilization of health services, problems which may arise in this method of insuring health care and various ways to improve the quality of health care for this segment of the population.

The experience gained through this project will be of value in determining the method of implementing Title XIX throughout Florida for all welfare recipients and ultimately all needy sick. Several opportunities exist in this method for the medical profession to improve the quality and availability of medical care and provide better continuing medical education.

The alternative to the insurance carrier-medical foundation method of implementing Title XIX is a state agency administered fee schedule health care program for eligible recipients provided by agency certified vendors.

H. Phillip Hampton, M.D.
Tampa





Others Are Saying

Decision...In The Wrong Hands

The decision in Missouri to perform an abortion is not in the hands of the members of the medical profession but is lodged in the law written by a group of elected public officials, (some farmers, some lawyers, some business men, some professional politicians). That is wrong.

The decision should be a medical one. The result of the decision can have a tremendous effect on the physical and psychological well-being of the pregnant woman involved.

In Missouri we live under many antiquated laws written by non-medical zealots who have confused medical necessity with their own interpretation of the moral values of their day. Today pregnancy resulting from rape or incest must go on to its physical conclusion: birth. Medical science does not have the right to solve the psychological problem of the pregnant woman. She, in the fulfillment of her own logic and reason, must resort to the quack, the untrained, or the village midwife.

It is believed that in Italy more than 40,000 women die each year as a result of about a million illegal abortions being performed. These figures, coming from a country where church membership is almost equal to the population and where, we believe, church edicts are strictly obeyed leave us astounded and appalled.

Closer home we may be even more shocked if we could learn of the number of illegal operations performed annually and the number of deaths following as a result of these operations.

Theologians of the Dark Ages (and political leaders following their leadership) may have been convinced of the validity of their conclusions regarding abortion. Modern, enlightened, civilized man however should no longer let the matter be decided by an obsolete law perhaps written 100 years ago.

The decision is a medical one—not theological—not political. The time has come for the medical profession to make all the decisions in this field, decisions that may (and often do) affect the physical and mental welfare of the patient involved. Now the patient's future is decided not by logic, not by reason, but by an obsolete law written by some who (rather than make enlightened progress) would fall back on the old bromide, "It was good enough for mother, and it's good enough for me."

Well it isn't. It should not be. Missouri could be the first State in the Union to move into the twentieth century. WHY DOESN'T IT?

Reprinted from the St. Louis County Medical Society Bulletin, Oct. 21, 1966.

IRON DEFICIENCY

ANEMIA



Imferon®
(iron dextran injection)

There's as much iron . . . 250 mg. . . . in a 5 cc. ampul of Imferon (iron dextran injection) as in a pint of whole blood. When iron deficient patients are intolerant of oral iron . . . or orally administered iron proves ineffective or impractical . . . or if the patient cannot be relied upon to take oral iron as prescribed, Imferon (iron dextran injection) dependably increases hemoglobin and rapidly replenishes iron reserves. Precise dosage is easily calculated.

LAKESIDE

IN BRIEF: ACTION AND USES: A single dose of Imferon (iron dextran injection) will measurably begin to raise hemoglobin and a complete course of therapy will effectively rebuild iron reserves. The drug is indicated only for specifically-diagnosed cases of iron deficiency anemia and then only when oral administration of iron is ineffective or impractical. Such iron deficiency may include: patients in the last trimester of pregnancy; patients with gastrointestinal disease or those recovering from gastrointestinal surgery; patients with chronic bleeding with continual and extensive iron losses not rapidly replenishable with oral iron; patients intolerant of blood transfusion as a source of iron; infants with hypochromic anemia; patients who cannot be relied upon to take oral iron.

COMPOSITION: Imferon (iron dextran injection) is a well-tolerated solution of iron dextran complex providing an equivalent of 50 mg. iron in each cc. The solution contains 0.9% sodium chloride and has a pH of 5.2-6.0. The 10 cc. vial contains 0.5% phenol as a preservative.

ADMINISTRATION AND DOSAGE: Dosage, based upon body weight and Gm. Hb/100 cc. of blood, ranges from 0.5 cc. in infants to 5.0 cc. in adults, daily, every other day, or weekly. Initial test doses are advisable. The total iron requirement for the individual patient is readily obtainable from the dosage chart in the package insert. Deep intramuscular injection in the upper outer quadrant of the buttock, using a Z-track technique, (with displacement of the skin laterally prior to injection), insures absorption and will help avoid staining of the skin. A 2-inch needle is recommended for the adult of average size.

SIDE EFFECTS: Local and systemic side effects are few. Staining of the skin may occur. Excessive dosage, beyond the calculated need, may cause hemosiderosis. Although allergic or anaphylactoid reactions are not common, occasional severe reactions have been observed, including three fatal reactions which may have been due to Imferon (iron dextran injection). Urticaria, arthralgia, lymphadenopathy, nausea, headache and fever have occasionally been reported.

PRECAUTIONS: If sensitivity to test doses is manifested, the drug should not be given. Imferon (iron dextran injection) must be administered by deep intramuscular injection only. Inject only in the upper outer quadrant of the buttock, not in the arm or other exposed area.

CONTRAINDICATIONS: Imferon (iron dextran injection) is contraindicated in patients sensitive to iron dextran complex. Since its use is intended for the treatment of iron deficiency anemia only it is contraindicated in other anemias.

CARCINOGENICITY POTENTIAL: Using relatively massive doses, Imferon (iron dextran injection) has been shown to produce sarcoma in rats, mice and rabbits and possibly in hamsters, but not in guinea pigs. The risk of carcinogenesis, if any in man, following recommended therapy with Imferon (iron dextran injection) appears to be extremely small.

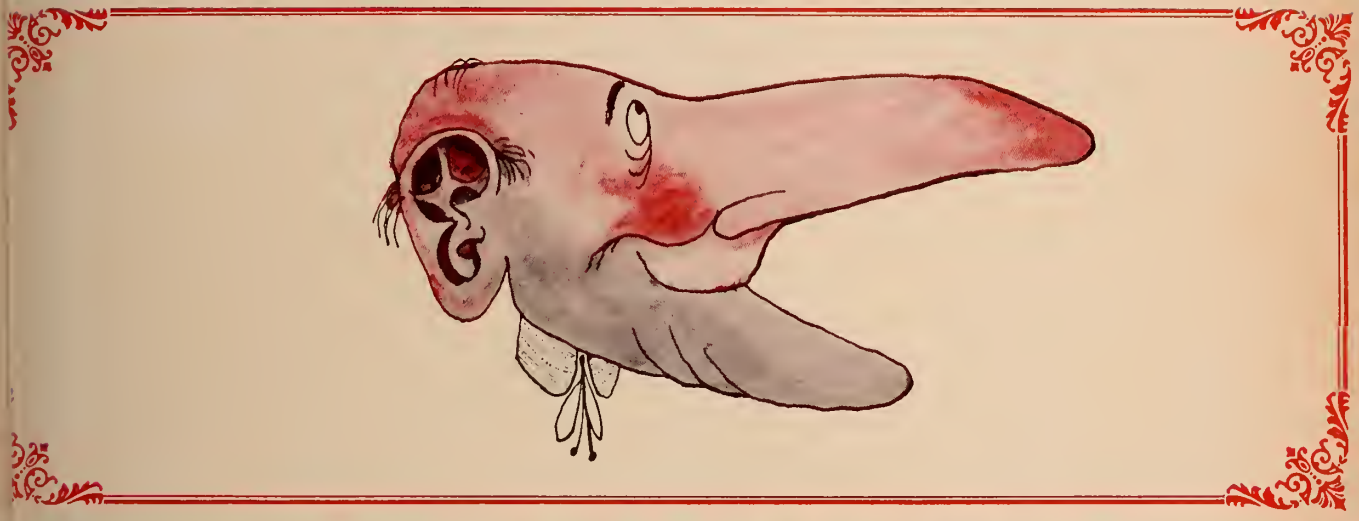
SUPPLIED: 2 cc. ampuls, boxes of 10; 5 cc. ampuls, boxes of 4, 10 cc. multiple dose vials.

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201

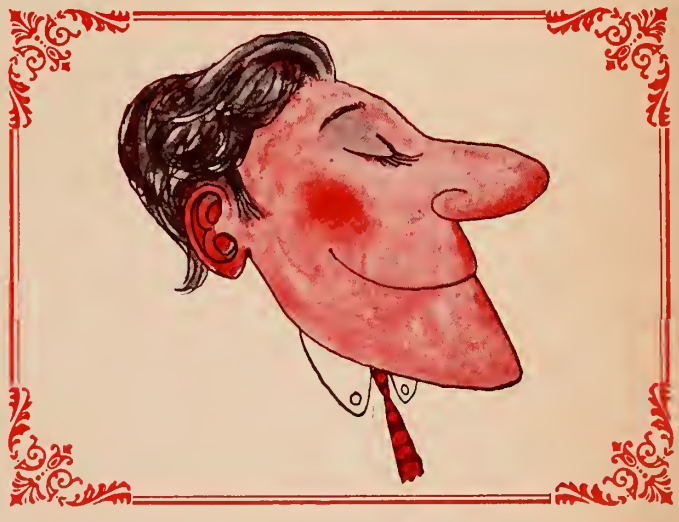
for noses of every description, one safe and sure prescription:

Otrivin®

(xylometazoline CIBA)
on Rx only







■ quickly relieves congested nose
■ action is gentle, yet prolonged
■ side effects are minimal

NDICATION: Nasal congestion. CONTRAINDICATION: Do not use patients sensitive to small doses of sympathomimetic substances. VARNINGS: Prolonged or excessive use may cause rebound congestion. Use cautiously in patients with hyperthyroidism, coronary artery isease, hypertension, and diabetes. CAUTION: Do not shake Nasal pray. Rinse Nasal Solution dropper or Nasal Spray tip in hot water fter each use. No more than one person should use the same dropper ottle or nasal spray.

IDE EFFECTS: Occasional local reactions: rebound congestion, light burning or stinging, sneezing, dry nose. Occasional systemic ffects: headache, drowsiness, lightheadedness, insomnia, palpitaons. Overdosage in young children may produce profound sedation.

OSAGE: **Adults:** *Nasal Solution*—2 or 3 drops in each nostril every to 6 hours. *Nasal Spray*—Squeeze rapidly once or twice in each nosil every 4 to 6 hours. **Children under 12:** *Pediatric Nasal Solution*—or 3 drops in each nostril every 4 to 6 hours. One drop should be used in infants under 6 months. *Pediatric Nasal Spray*—Squeeze rapidly once in each nostril holding tube upright; repeat every 4 hours as necessary. SUPPLIED: OTRIVIN® hydrochloride (xylometazoline hydrochloride CIBA) *Nasal Solution*, 0.1%; dropper bottles of 1 fluidounce, bottles of 1 pint. *Nasal Spray*, 0.1%; plastic squeeze tubes of 15 ml. *Pediatric Nasal Solution*, 0.05%; dropper bottles of 1 fluidounce. *Pediatric Nasal Spray*, 0.05%; plastic squeeze tubes of 15 ml. *Nasal Solutions* contain either 0.1% or 0.05% xylometazoline hydrochloride, triethanolamine, hydrochloric acid, sodium chloride, and phenylmercuric acetate 1:50,000 as preservative in water. *Nasal Sprays* contain either 0.1% or 0.05% xylometazoline hydrochloride, potassium phosphate monobasic, potassium chloride, sodium phosphate dibasic, sodium chloride, and benzalkonium chloride 1:5000 as preservative in water. *Consult complete literature before prescribing.*

CIBA Pharmaceutical Company, Summit, N. J.

C I B A

2/3329 MKL-1

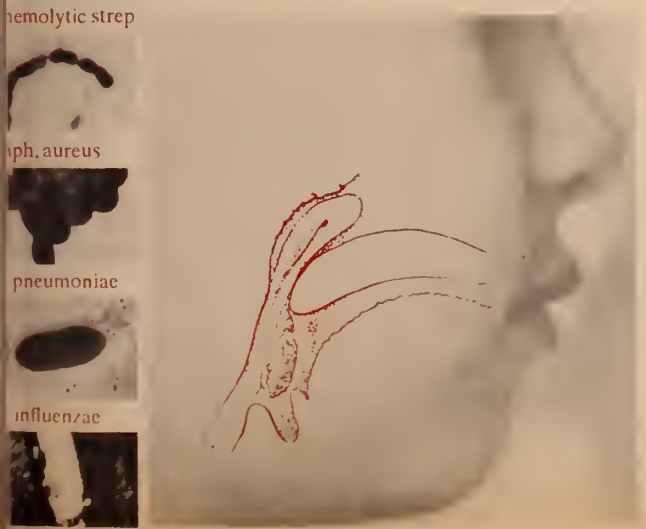

It's easy
for children
to get bacteri
U.R.I....

and Gantanol (sulfamethoxazole) Suspension is a good way to help them get well

oven effectiveness in common bacterial upper spiratory infections

nical results in patients probably much like those you see every show that an overwhelming majority responded favorably to ntanol (sulfamethoxazole) Suspension.[1-12] These patients, num- ing over 1600 in published reports, had a variety of bacterial per respiratory infections such as otitis media, sinusitis, pharyn- s and tonsillitis, including over 700 cases caused by beta-hemo- ic streptococci.[1-7]

though in bacteriologically proven streptococcal infections peni- in remains the drug of choice, Gantanol (sulfamethoxazole) has own conversion rates comparable to those generally seen with nicillin and apparently superior to those cited in the literature for ythromycin and broad-spectrum antibiotics.[1-2] Conversion rates ve ranged from a high of 96 per cent in 229 patients[2] to a low of per cent in 105 cases.[3,4] When Gantanol (sulfamethoxazole) spension is used in group A beta-hemolytic streptococcal infec- ns, it is important to continue therapy in the recommended dos- e for at least 10 days. In addition, Gantanol (sulfamethoxazole) spension has demonstrated antibacterial activity against *D. pneu- oniae, H. influenzae* and *Staph. aureus*. Thus Gantanol (sulfa- ethoxazole) Suspension may be considered a practical choice for mmon bacterial U.R.I., as well as an effective alternative in the nicillin-sensitive patient with proven beta-hemolytic strepto- ccal infection.



therapy generally uncomplicated by side effects

Such favorable results as those cited in the literature[1-12] are even more meaningful in view of the fact that only 27 of 1961 patients (1.4%) discontinued therapy because of side effects. Of the total side effects reported in 107 patients (5.5%), most were mild and included rash, urticaria, itching, dizziness, headache, diarrhea, nausea and vomiting, shivering sensation, skin discoloration and crystalluria.[1-12]

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Acute and chronic respiratory and urinary tract bacterial infections due to susceptible microorganisms. At present penicillin is considered the drug of choice in acute group A beta-hemolytic streptococcal infections; however, Gantanol (sulfamethoxazole) has shown an effectiveness approaching that of penicillin in a large number of patients. If employed in such infections, *it is important that therapy be continued in the usual recommended dosage for a period of at least 10 days.*

Contraindicated in sulfonamide-sensitive patients, pregnant females at term, premature infants or infants during first 3 months of life.

Warnings: Use only after critical appraisal in patients with liver damage, renal damage, urinary obstruction or blood dyscrasias. If toxic or hypersensitivity reactions or blood dyscrasias occur, discontinue therapy. In intermittent or prolonged therapy, blood counts and liver and kidney function tests should be performed. Data insufficient on prolonged or recurrent therapy in chronic renal diseases of children.

Precautions: Observe usual sulfonamide therapy precautions, including maintenance of an adequate fluid intake. Use with caution in patients with histories of allergies and/or asthma. Patients with impaired renal function should be followed closely since renal impairment may cause excessive drug accumulation. Occasional failures may occur due to resistant microorganisms. Not effective in virus or rickettsial infections.

Adverse Reactions: Following may occur: headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, Stevens-Johnson syndrome, skin rash, injection of the conjunctiva and sclera, petechiae, purpura, hematuria and crystalluria.

Dosage: Children—1 teasp./20 lbs initially, followed by ½ teasp./20 lbs b.i.d. *Adults*—4 teasp. initially, followed by 2 teasp. b.i.d. or t.i.d., depending upon severity of infection.

How Supplied: Suspension 10%, 0.5 Gm sulfamethoxazole/5 cc teasp., cherry-flavored, bottles of 16 oz.

References: 1. Braden, B., and Colmore, J. P.: *J. Oklahoma M.A., 57*:7, 1964. 2. Alban, J.: *Am. J. Dis. Child., 109*:304, 1965. 3. Reichelderfer, T. E.: *Clin. Med., 71*:1045, 1964. 4. Jackson, H.; Cooper, J.; Mellinger, W. J., and Olsen, A. R.: *Southwestern Med., 44*:246, 1963. 5. Braden, B.; Colmore, J. P., and Cummings, M. M.: Antimicrobial Agents Annual—1960, p. 54. 6. Peters, J. H.: Data adapted from a Scientific Exhibit presented at the Spring Meeting of the American Academy of Pediatrics, April 26-29, 1965. 7. Peters, J. H.: Antimicrobial Agents and Chemotherapy—1961, p. 406. 8. Elia, J. C.: *Eye Ear Nose & Throat Month., 41*:722, 1962. 9. Patton, J. M.: *West. Med., 5*:46, 1964. 10. Chastain, P. J.: *J. Florida M.A., 48*:816, 1962. 11. Grater, W. C.: *Antibiotics & Chemother., 12*:450, 1962. 12. Exline, A. L.: *Colorado GP, 5*:(5),11, 1963.

Gantanol®
(sulfamethoxazole)
Suspension

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

ROCHE

Blood-glucose screening for all your patients?

...because "Abnormalities of glucose metabolism are among the [most common] encountered in clinical practice...."* Simple, quick, economical blood-glucose screening with DEXTROSTIX® Reagent Strips is practicable in every regular physical examination, emergency situation, and whenever hypo- or hyperglycemia may be of clinical significance—for "The precision and accuracy of DEXTROSTIX ...meet the need for an always available simple screening method...."* All that is required for screening with DEXTROSTIX is 60 seconds and a globular drop of capillary or venous blood. Abnormal readings will be a valuable aid to diagnosis; normals will help you establish an important baseline for future reference.

*Marks, V., and Dawson, A.: Brit. M. J. *1*:293, 1965.



DEXTROSTIX—
provides a clinically useful determination when performed according to directions†

†DEXTROSTIX is not intended to replace the more precise analytical laboratory methods.

Yes—all your patients

AMES COMPANY, INC.
Elkhart, Indiana

AMES

09165

Thomas B. Slade | Fifty Years in Florida | J. Beatty Williams

Surgical SUPPLY COMPANY

HAMILTON — RITTER — SKLAR — BURDICK
CLAY-ADAMS — B-D — BARD-PARKER — TYCOS
BAUM — WELCH-ALLYN AND MANY, MANY OTHERS

Ph. 355-8391 | P. O. Box 2580 — 1050 W. Adams Street | Jacksonville, Fla. 32203

Hill Crest HOSPITAL

[Formerly Hill Crest Sanitarium]

7000 5TH AVENUE SOUTH
Box 2896, Woodlawn Station
Birmingham, Alabama 35212
Phone: 205 - 595-1151

A patient centered independent hospital for intensive treatment of nervous disorders . . .

Hill Crest Hospital was established in 1925 as Hill Crest Sanitarium to provide private psychiatric treatment of nervous or mental disorders. Individual patient care has been the theme during its 41 years of service.

Both male and female patients are accepted and departmentalized care is provided according to sex and the degree of illness.

In addition to the psychiatric staff, consultants are available in all medical specialities.



MEDICAL DIRECTOR:
James A. Becton, M.D., F.A.P.A.

CLINICAL DIRECTORS:
James K. Ward, M.D., F.A.P.A.
Hardin M. Ritchey, M.D., F.A.P.A.

HILL CREST is a member of:
AMERICAN HOSPITAL ASSOCIATION . . . . . NATIONAL ASSOCIATION OF PRIVATE PSYCHIATRIC HOSPITALS . . . ALABAMA HOSPITAL ASSOCIATION . . . BIRMINGHAM REGIONAL HOSPITAL COUNCIL.
Hill Crest is fully accredited by the Joint Commission on Accreditation of Hospitals.

Hill Crest HOSPITAL
BIRMINGHAM, ALABAMA



Togetherness....

...can be rough when epidemics of nausea and vomiting strike a family. Emetrol offers prompt, safe relief. It is free from toxicity[1] or side effects[2,3] and will not mask symptoms of serious organic disorders.

1. Bradley, J. E., *et al.*: J. Pediat. *38*:41 (Jan.) 1951.
2. Bradley, J. E.: Mod. Med. *20*:71 (Oct. 15) 1952.
3. Crunden, A. B., Jr., and Davis, W. A.: Am. J. Obst. & Gynec. *65*:311 (Feb.) 1953.



ROER

WILLIAM H. RORER, INC.
Fort Washington, Pa.

Emetrol®
phosphorated carbohydrate solution
emesis control

APPALACHIAN HALL

ASHEVILLE — Established 1916 — NORTH CAROLINA



An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.

Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.

Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

Wm. Ray Griffin Jr., M.D.
Robert A. Griffin, M.D.

Mark A. Griffin Sr., M.D.
Mark A. Griffin Jr., M.D.

NEWS

UM To Construct $5 Million Mental Retardation Study Center

A $5 million University of Miami center for the study of mental retardation has been assured for Florida and the Southeast with the award of a $3,054,432 construction grant by the U. S. Public Health Service.

In addition to the PHS grant, the University of Miami will make available from other sources the sum of $1,018,143 for construction of the center, according to UM President Henry King Stanford.

Metropolitan Dade County has earmarked four and a half acres of county property between the University's National Children's Cardiac Hospital and the entrance to Jackson Memorial Hospital as the site of the new facility. The total cost of construction, including the value of the land, approaches $5 million.

Official name of the center will be the University of Miami Facility for Study of Mental Retardation. It is expected that construction may begin in November 1967, with a target opening date in September 1969.

Cancer In Children Subject of New ACS Film

The American Cancer Society has a new professional film entitled Cancer In Children. The new 27-minute film was produced in California with the assistance of the staff of Children's Hospital of Los Angeles and the faculty of the University of Southern California School of Medicine.

The film discusses the case of a child with Wilms's Tumor; the detection of the tumor, diagnostic procedures and findings, and the management are described. The film then deals in turn with cases of neuroblastoma, intracranial neoplasms, leukemia and rhabdomyosarcoma. In each case, the significant features of the disease are given: its natural history, frequency, differential diagnosis, management and prognosis.

Physicians interested in booking this film should contact the local unit of the American Cancer Society.

ACS To Start Research To Learn Why People Smoke

The American Cancer Society will start research studies soon to learn why people smoke cigarettes and how to persuade them to stop, Dr. Ashbel C. Williams told 250 delegates at the ACS Florida Division meeting held in Sarasota November 12, 1966.

Dr. Williams, Jacksonville surgeon and FMA member, is the new national president of ACS. He is the first ACS president from Florida.

UF Faculty Members Contribute Chapters to Book on Tropical Medicine

A revised textbook on tropical and subtropical medicine and the latest techniques of combating epidemics and diseases which accompany battle zones and the people of those areas was released recently by W. B. Saunders & Company of Philadelphia and London.

Four faculty members in the University of Florida College of Medicine contributed chapters to the major work: Dr. Victor M. Arean, professor of pathology and FMA member; Dr. Eugene Sanders, Division of Infectious Disease; Dr. Herbert E. Kaufman, chairman, Department of Ophthalmology and Dr. Henry E. Meleney, a professor emeritus of medicine and long time figure in public health and preventive medicine.

Two FMA Members Elected SMA Officers

Two FMA members were elected to office by the Southern Medical Association at its recent meeting held in Washington, D. C.

Dr. Donald F. Marion, Miami gastroenterologist, was elected SMA first vice president and Dr. Anthony A. Fernandez, Tampa pediatrician, is the SMA secretary-elect.

TUCKER HOSPITAL, INC.

212 West Franklin Street

Richmond, Virginia

A private hospital for diagnosis and treatment of psychiatric and neurological disorders. Hospital and out-patient services.

James Asa Shield, M.D.
George S. Fultz, Jr., M.D.
Catherine T. Ray, M.D.

Weir M. Tucker, M.D.
Edward W. Gamble, III, M.D.
Gerald W. Atkinson, M.D.

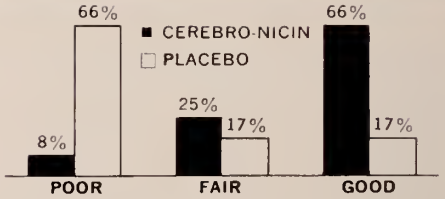
For the treatment of

apathy
irritability
forgetfulness
confusion

in the aging patient

Cerebro-Nicin®

A GENTLE CEREBRAL STIMULANT AND VASODILATOR



CEREBRO-NICIN® New double-blind study* shows how effectively senility can be forestalled. Four times as many aging patients showed striking improvement.

*A Double-Blind Study of Cerebro-Nicin, Therapy for the Geriatric Patient, R. Goldberg, Jrnl. of the Amer. Ger. Soc., June, 1964.

EACH CEREBRO-NICIN CAPSULE CONTAINS:

Pentamethylene Tetrazole	100 mg.
Nicotinic Acid	100 mg.
Ascorbic Acid	100 mg
Thiamine HCl	25 mg
l-Glutamic Acid	50 mg.
Niacinamide	5 mg
Riboflavin	2 mg
Pyridoxine	2 mg

DOSAGE: One capsule t.i.d. or as prescribed by physician.

AVAILABLE: Bottles of 100, 500, 1000 capsules.
Also elixir pint bottles.

CONTRAINDICATIONS: There are no known contraindications to Pentamethylene Tetrazole although caution should be exercised when treating patients with a low convulsive threshold.

Most persons experience a flushing or tingling sensation after taking a higher potency niacin-containing compound. As a secondary reaction some will complain of nausea and other sensations of discomfort. This reaction is transient and is rarely a cause of discontinuance of the drug if the patient is forewarned to expect the reaction.

Federal law prohibits dispensing without a prescription.

Write for literature and samples . . .

BROWN

THE BROWN PHARMACEUTICAL CO.
2500 W. Sixth Street,
Los Angeles, California 90057

REFER TO PDR



in digestive disorders:

B and C vitamins aid therapy. Nausea, vomiting, and severe diarrhea may seriously interfere with the digestion and absorption of nutrients. STRESSCAPS capsules, containing therapeutic quantities of vitamins B and C, may help meet the needs of these patients. In digestive disorders, as in many stress conditions, STRESSCAPS vitamins aid therapy.



Stresscaps®

Stress Formula Vitamins Lederle

FOR PROFESSIONAL RECOMMENDATION ONLY

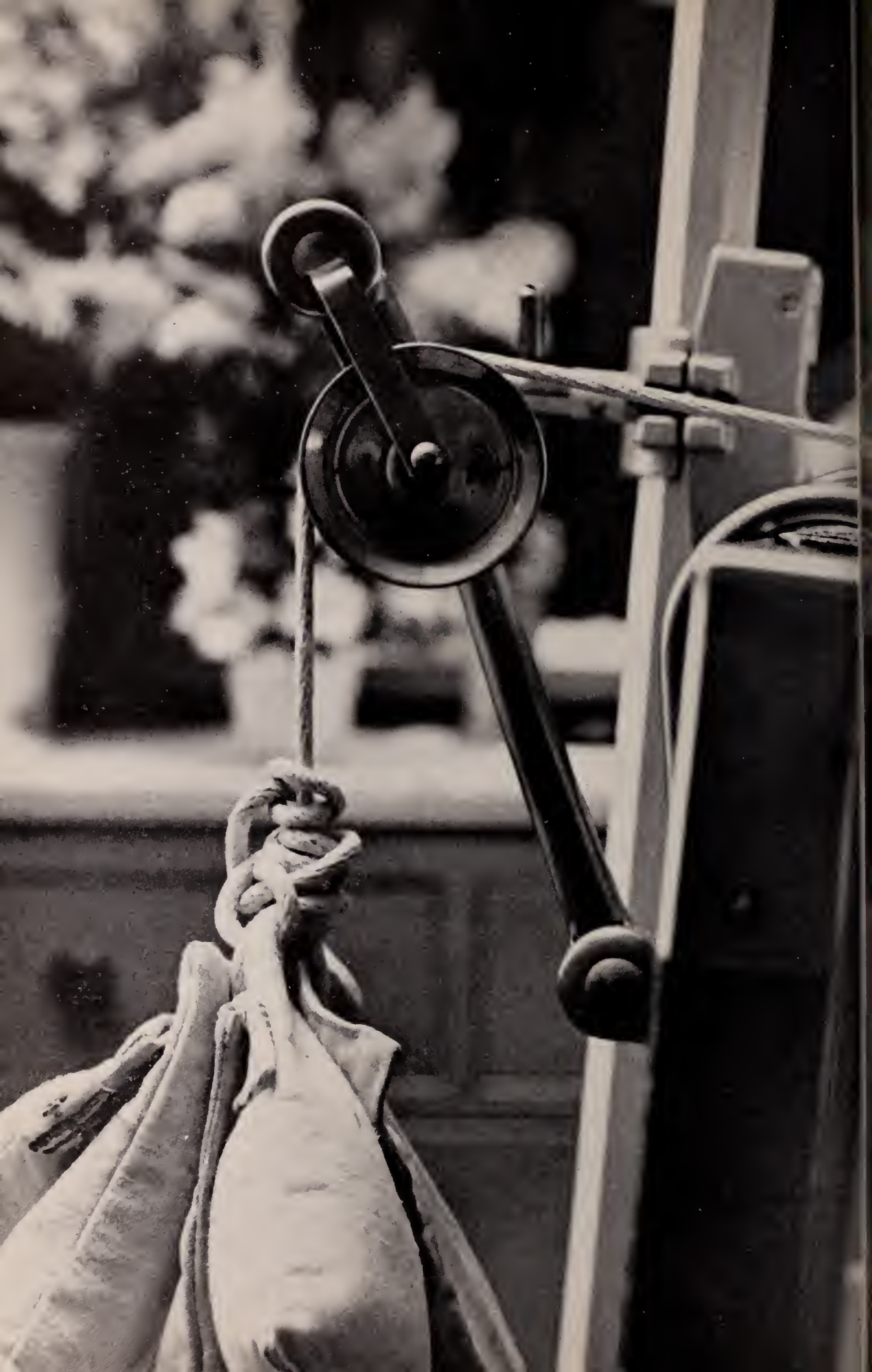
Each capsule contains:	
Vitamin B_1 (as Thiamine Mononitrate)	10 mg
Vitamin B_2 (Riboflavin)	10 mg
Vitamin B_6 (Pyridoxine HCl)	2 mg
Vitamin B_{12} Crystalline	4 mcgm
Vitamin C (Ascorbic Acid)	300 mg
Niacinamide	100 mg
Calcium Pantothenate	20 mg

Recommended intake: Adults, 1 capsule daily, for the treatment of vitamin deficiencies. Supplied in decorative "reminder" jars of 30 and 100; bottles of 500.

LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York

692—6—3943

Lederle





TABLETS

Equagesic®

(meprobamate and ethoheptazine citrate with aspirin)

Wyeth®

Precautions: Keep out of reach of children. Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use of meprobamate may result in dependence or habituation in susceptible persons—as ex-addicts, alcoholics, severe psychoneurotics. Withdraw gradually after prolonged high dosage to avoid possibly severe withdrawal reactions including epileptiform seizures. Warn patients of possible reduced alcohol tolerance. If drowsiness, ataxia or visual disturbances occur, reduce dose. If symptoms persist, caution patients against operating machinery or driving. Give cautiously to patients with suicidal tendencies. Treat attempted sulcide with immediate gastric lavage and appropriate supportive therapy

Side Effects: Ethoheptazine and aspirin may occasionally cause nausea, vomiting, epigastric distress, and rarely dizziness and CNS depression. Overdosage may result in salicylate intoxication. Meprobamate rarely causes allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever have been reported. Meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioedema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. A few cases of leukopenia, usually transient, have been reported following prolonged dosage. Rarely, cases of aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia have been reported; almost always, in the presence of known toxic agents.

Contraindications: History of sensitivity or severe intolerance to aspirin or meprobamate.

Composition: 150 mg. meprobamate, 75 mg. ethoheptazine citrate and 250 mg. aspirin per tablet.

Wyeth Laboratories Philadelphia, Pa.

Weighing on his mind, too

When pain evokes anxiety and tension, thereby heightening patient discomfort, a simple analgesic may only touch on part of the problem.

This single-prescription, nonnarcotic product, however, usually provides effective analgesia *and* helps put the patient's mind at ease.



Whenever the diet is faulty, the appetite poor, or the loss of food is excessive

through vomiting or diarrhea—

Valentine's
MEAT EXTRACT

stimulates the appetite,

increases the flow of digestive juices,

provides: supplementary amounts of vitamins, minerals and soluble proteins,

extra-dietary vitamin B_{12},

protective quantities of potassium, in a palatable and readily assimilated form.

Supplied in bottles of 2 or 6 fluidounces.

DOSAGE *is 1 teaspoonful two or three times daily; two or three times this amount for potassium therapy. Dilute with two or more equal volumes of water.*

VALENTINE Company, Inc.
RICHMOND 21 VIRGINIA

A COMPLETE BUSINESS SERVICE

FOR THE MEDICAL AND DENTAL PROFESSIONS

Professional Management

PM FLORIDA

233 Fourth Avenue, N.E.
St. Petersburg, Florida
Phone 898-5074

1855 Hillview Street
Sarasota, Florida
Sarasota Phone 958-4493
4771 Bilmark
Ft. Myers, Florida
Ft. Myers Phone 936-3162

PROFESSIONAL MANAGEMENT since 1932 PM FOR PHYSICIANS AND DENTISTS

417 Executive Building
1175 N.E. 125th St.
Miami, Florida 33125
Dade Phone 751-2101
Broward Phone 523-0286

Affiliates of Black & Skaggs Associates
Battle Creek, Michigan

YOUR Patronage Has Made Our Growth Possible

Medical Supply Company of Jacksonville



Home Office
JACKSONVILLE
4539 Beach Blvd.
Telephone FL 9-2191

ORLANDO
1511 Sligh Blvd.
Telephone GA 5-3537

One 'Ornade' Spansule Capsule works all day (or all night) to make your patient with a cold a lot more comfortable.

'Ornade', the unique oral nasal decongestant with a drying agent, a decongestant and an antihistamine in the ideal dosage form

Ornade® Spansule® Capsules

Trademark — brand of sustained release capsules

ALL-DAY OR ALL-NIGHT RELIEF



Each capsule contains 8 mg. of Teldrin® (brand of chlorpheniramine maleate), 50 mg. of phenylpropanolamine hydrochloride, and 2.5 mg. of isopropamide, as the iodide.

The following is a brief precautionary statement. Before prescribing, the physician should be familiar with the complete prescribing information in SK&F literature or *PDR*. *Contraindications:* Patients with glaucoma, prostatic hypertrophy, stenosing peptic ulcer, pyloroduodenal obstruction, or bladder neck obstruction. *Precautions:* Use with caution in the presence of hypertension, hyperthyroidism, or coronary artery disease; and, in patients who may operate vehicles or machinery, warn of possible drowsiness. *Note:* Since the iodine in isopropamide iodide may alter PBI test results and will suppress I^{131} uptake, it is suggested that 'Ornade' be discontinued one week before these tests. *Side effects:* Drowsiness; excessive dryness of nose, throat, or mouth; nervousness; or insomnia may occur rarely, but are usually mild and transitory. Other known possible side effects of the individual ingredients are: nausea, vomiting, diarrhea, rash, dizziness, fatigue, tightness of chest, abdominal pain, irritability, tachycardia, headache, and difficulty in urination.

Smith Kline & French Laboratories SK&F



when he just can't sleep

Tuinal

Sodium Amobarbital and Sodium Secobarbital

(One-Half Sodium Amobarbital and One-Half Sodium Secobarbital)



Tuinal helps wakeful patients fall asleep fast, stay asleep all night.

Indications: Tuinal, comprised of equal parts of Seconal® Sodium (sodium secobarbital, Lilly) and Amytal® Sodium (sodium amobarbital, Lilly), is indicated for prompt and moderately long-acting hypnosis.

Contraindications: Barbiturates should not be administered to anyone with a history of porphyria, nor should they be given in the presence of uncontrolled pain, because excitement may result.

Warning: May be habit-forming.

Precautions: Tuinal should be used cautiously in patients with decreased liver function, since prolongation of effect may occur.

Adverse Reactions: Idiosyncrasy, such as excitement, hangover, or pain, may appear. Hypersensitivity reactions occur in some patients, especially in those with asthma, urticaria, or angioneurotic edema.



Dosage: 1½ to 3 grains at bedtime.

Supplied: ¾, 1½, and 3-grain Pulvules®.

Additional information available to physicians upon request.
Eli Lilly and Company • Indianapolis, Indiana 46206

Lilly

700196



GET AWAY FROM THAT TELEPHONE

Steal an hour, a day, a week—fishing, cruising, loafing. Stamas years of know-how give you superb quality and performance. Plenty of room for family and friends. Enclosed cabin, 2 full-length bunks, marine toilet. Famous Stamas Level Ride in any water, at all speeds. All fiberglass. V-24 Clearwater is trailerable without special highway permits. And priced so low you can't say no!

WRITE Dept. F for color brochures and name of nearest dealer. Stamas Boats are built in Florida; enjoyed all over the world.

Stamas BOATS, INC.
THE FOLKS WHO WROTE THE BOOK ON BUILDING FINEST FIBERGLASS BOATS
Tarpon Springs, Florida 33589





ACTIVATE MUCUS LIQUEFACTION

in Bronchitis, Sinusitis, Asthma with well-tolerated

IODO-NIACIN®

Each Slosol coated tablet contains Potassium Iodide 135 mg. and Niacinamide Hydroiodide 25 mg.

Taste-free Iodo-Niacin provides mucus liquefying KI in a palatable form which on prolonged use greatly reduces the possibility of iodism.

In *The Pharmacologic Basis of Therapeutics,* Goodman and Gilman affirm, "Iodide salts are useful expectorants when it is desired to liquefy tenacious bronchial secretions, for example, in the later states of bronchitis, bronchiectasis, and asthma." Ed.3, New York, Macmillan, 1965, p. 815.

When discussing symptomatic therapy of status asthmaticus, Hildreth recently stated, "There is little evidence that any expectorant other than potassium iodide is of practical value in this situation." Hildreth, E. A., Postgrad. Med., 38:460 (Nov.) 1965.

When Iodo-Niacin was used for iodide therapy continuously for over one year, symptoms of iodism were predominantly absent or of minor extent.

Dosage and how supplied: Adults—two tablets after meals taken with water. Children over eight years—one tablet after meals with water. Available in bottles of 100.

Caution: Serious side effects from Iodo-Niacin are rare. Caution is recommended in persons with known sensitivity to iodides. Pulmonary tuberculosis is considered a contraindication to the use of iodides by some authorities, and should be used with caution in such cases. As with all drugs, Iodo-Niacin may cause an idiosyncrasy in some patients. Rare cases of goiter with hypothyroidism have been reported in adults and in newborn infants of mothers taking iodides for prolonged periods. Use appropriate precaution in pregnancy and in individuals receiving Iodo-Niacin for prolonged periods.

COLE PHARMACAL COMPANY, INC.
3721 Laclede Avenue, St. Louis, Missouri 63108



fluocinolone acetonide — an original steroid from

SYNTEX

LABORATORIES INC., PALO ALTO, CALIF.

controls infected inflammatory dermatoses that start from scratch



Neo-Synalar®

(fluocinolone acetonide-neomycin sulfate cream)

Cream

The "itch-scratch" cycle usually associated with inflammation often results in infected dermatoses because broken skin surfaces are particularly vulnerable to pathogenic bacteria.[1] To treat infected inflammatory dermatoses, Neo-Synalar Cream combines the most active topical corticosteroid with a highly reliable antibiotic generally reserved for topical application.

In Neo-Synalar, fluocinoline acetonide controls the inflammation and provides rapid relief from associated pruritus. At the same time, its antibacterial component—neomycin—combats superficial infection caused by many gram-positive and gram-negative bacilli[2] that often colonize and thrive on abraded skin.[1]

A specially formulated vanishing cream base that is greaseless and odor free makes Neo-Synalar cosmetically appealing, and encourages greater patient cooperation.

controls the infection

stops the scratch

Contraindications: Tuberculous, fungal, and most viral lesions of the skin (including herpes simplex, vaccinia, and varicella). Not for ophthalmic use. Contraindicated in individuals with a history of hypersensitivity to any of its components. **Precautions:** Neomycin rarely produces allergic reactions. Prolonged use of any antibiotic may result in overgrowth of nonsusceptible organisms; if this occurs, appropriate therapy should be instituted. Where severe local infection or systemic infection exists, the use of systemic antibiotics should be considered, based on susceptibility testing. While topical steroids have not been reported to have an adverse effect on pregnancy, the safety of their use on pregnant females has not absolutely been established. Therefore, they should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time. **Side Effects:** Side effects are not ordinarily encountered with topical corticosteroids. As with all drugs, however, a few patients may react unfavorably to Neo-Synalar under certain conditions. **Availability:** Neo-Synalar Cream (0.025% fluocinolone acetonide, neomycin sulfate, equivalent to 0.35% neomycin base), 5 and 15 Gm. tubes.

References: 1. Pillsbury, D. M., Shelley, W. B., and Kligman, A. M.: A manual of cutaneous medicine, Philadelphia, Saunders, 1961, p. 79. **2.** Barber, M., and Garrod, L. P.: Antibiotic and chemotherapy, Baltimore, Williams and Wilkins, 1963, p. 111.

The Medical Detective



Hit and Run Victim?

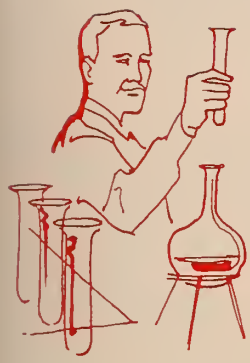
Early one morning a sheriff was informed of a body lying on a county road. The body was found 150 feet from a large trailer truck which was in a ditch.

Initial investigation revealed a flashlight nearby in the "on" position. Blood was noted on the face and clothes, and the shirt was grease-stained and torn. Papers established the deceased as the driver of the truck. The investigating deputy thought the driver had left the disabled truck and was walking for help when he was struck by a vehicle. No glass or metal fragments were found near the scene. In view of the probability of a hit-and-run accident, the sheriff suggested an autopsy, and the state attorney so ordered.

The general investigation of the deceased's clothing revealed no paint, glass or metal fragments, but grease was noted on the right sleeve and the front of the shirt. Blood was found on the face and on the shirt front. The external examination of the unclothed body revealed a crushed chest wall on the left anterolateral aspect of the chest and a peculiar pattern of skin abrasion suggesting tire marks. Shock, accompanying the hemothorax secondary to the laceration of the left lung by a rib, apparently caused the death. The pathologist remarked that without leg or pelvic injuries the probability of a pedestrian-vehicular accident was unlikely. The deputy returned to the scene with a polaroid picture of the marks on the victim and found they matched those of the front left wheel of the truck. The deputy also found a wrench near the truck. It was evident that the truck had rolled back into the ditch. In questioning the driver's fellow employees, it was ascertained that the truck had been known to have a defective clutch, and that on several previous occasions the driver had crawled under the truck to hit the clutch with a wrench.

The final decision in this case was that the driver was injured when the truck rolled over him. Survival and movement after such a severe chest injury are not uncommon. They also occur after stabbings.

William G. Eckert, M.D.



Public Health Topics

Home Nursing Care

The problem case was that of a white woman, aged 68. A fracture of the neck of the femur resulted from a fall. The bone was repositioned, pinned, and the postoperative course was normal. Since the prognosis was good, probably permitting early discharge, the attending physician, a surgeon, inquired about conditions in her home.

The patient, a widow, lived with her only daughter and son-in-law. They had three children. The youngest, eight years old, was retarded; information indicated a mongoloid. Adequate care in the home appeared unlikely; the alternative was a nursing home.

The physician called the county health officer regarding licensed facilities, particularly those offering rehabilitative nursing care. He was referred to the nursing supervisor, who suggested that care in the patient's home might be practicable with visits by a nurse and daily assistance by a home health aide. The physician, unaware that these services recently had become available in the community, requested the nurse to visit the home. On this evaluation visit, it was evident that the daughter could not adequately cope with the responsibilities of caring for the patient, two school age children, and the retarded child. The mother had her own room in the ranch style home and could be conveniently cared for there.

Availability of home health aides was explained to the daughter who continued to question whether her mother could be cared for adequately at home. She was assured that aides had received special training in these duties and were instructed and closely supervised by registered nurses from the county health department who also visited the patients as frequently as needed. There was the matter of expense. This out-of-hospital service was provided as a medicare benefit designed to shorten the hospital stay of certain patients as determined by their physicians. The daughter concurred; she would be happy to have her mother at home.

The nurse reported to the attending physician and suggested a routine acceptable in the family. He approved, stated that the patient would be ready for discharge on the twelfth hospital day and requested that arrangements be completed for her care. He expressed appreciation for the assistance and for learning of the home nursing care program.

The aide reported for duty four hours each day for a five day week. Her routine included such tasks as assisting the patient in bathing, helping her into a chair and later helping her to begin weight bearing as ordered by the physician and demonstrated by the nurse. She also prepared lunch for the patient and kept the room in order. The nurse visited the home twice the first week and once per week thereafter. She noted the patient's progress, instructed the aide and reported to the physician.

The patient's recovery was uneventful, and after six months she had begun assuming her

normal activities within the family.

From the initial visit in the home, the nurse had been concerned about the abnormal emotional attitude of the parents toward the retarded child. With assistance by the grandmother, the other children had not been neglected; however, the nurse learned they were not receiving regular care from a physician and a dentist. She also learned that the parents definitely had resented previous advice that the retarded child be placed in a state institution.

Through tactful counseling, the nurse explained the function of the local chapter of the Florida Association for Retarded Children, and the need for regular medical and dental care for the other children.

During her final visit with the patient, the nurse learned that the parents were finding emotional relief in sharing their problems with other members of the association for mentally retarded children and were spending more time with the other children. They were visiting the family physician and dentist.

Florida has home nursing care available in all 67 counties, either through the Visiting Nurses Association or county health departments. Ten counties have home health aide services and more are planning for this program. These combined services are making possible early discharge of many patients, and in some instances removing the need for hospitalization.

Wilson T. Sowder, M.D.
State Health Officer
Enid Mathison, R.N., Director
Division of Public Health Nursing
Florida State Board of Health

PLAN TO ATTEND

93rd Annual Meeting, May 11-14

Americana Hotel, Bal Harbour

Meetings

February

8 Psychiatry in Medical Practice, Advanced Course, University of Miami School of Medicine, Jackson Memorial Hospital, Miami.

8 Psychiatry in Medical Practice, Basic Course, University of Miami School of Medicine, Jackson Memorial Hospital, Miami.

March

2- 4 Some Aspects of Embryology and Pathophysiology of Congenital Heart Disease, University of Florida College of Medicine, Gainesville.

4 Current Concepts in Modern Medicine, Watson Clinic Annual Seminar, Watson Clinic, Lakeland.

16-17 Obstetrics and Gynecology Seminar, University of Florida College of Medicine, Gainesville.

17 Psychiatry Seminar, University of Florida College of Medicine, Gainesville.

17 "Psychosomatic Aspects of Gastrointestinal Disease" Seminar and psychosomatic medicine regional meeting, University of Florida College of Medicine, Gainesvlle.

18-20 Amino Acids in Human Disease, University of Miami School of Medicine, Lucayan Beach Hotel, Freeport, Grand Bahama Island.

20-23 Current Status of Genitourinary Roentgenology, University of Miami School of Medicine, Fontainebleau Hotel, Miami Beach.

April

20-22 Current Concepts of the Management of Hip Disease and Trauma, University of Miami School of Medicine, Americana Hotel, Miami Beach.

May

11-14 Ninety-Third Annual Meeting, Florida Medical Association, Americana Hotel, Bal Harbour.

17 Psychiatry in Medical Practice, Basic Course, Jackson Memorial Hospital, Miami.

18-20 "Current Concepts of Medical and Surgical Shock," Mount Sinai Hospital of Greater Miami, Miami Beach.



He leaves to make an urgent call
But doesn't use the phone at all

Parepectolin for quick relief of acute diarrhea
...soothes colicky pain with paregoric
...consolidates fluid stools with pectin
...adsorbs irritants with kaolin, and protects intestinal mucosa

Whether it's a 24-hour "bug", a food problem, or simply nervousness and anxiety, Parepectolin will bring the diarrhea under control until etiology can be determined. In some cases, Parepectolin may be all the therapy necessary.

Parepectolin®

Each fluid ounce of creamy white suspension contains:
Paregoric (equivalent).....(1.0 dram) 3.7 ml.
Contains opium (¼ grain) 15 mg. per fluid ounce.
warning: may be habit forming
Pectin ..... (2½ grains) 162 mg.
Kaolin (specially purified)....(85 grains) 5.5 Gm.
(alcohol 0.69%)
Usual Adult Dose: One or two tablespoonfuls three times daily.

RORER

WILLIAM H. RORER, INC.
Fort Washington, Pa.



Government News

NIH Artificial Heart Research

The National Institutes of Health is concentrating its efforts in the artificial heart field to support of programs for development of auxiliary heart-pumping devices instead of a complete artificial heart.

The auxiliary device approach includes the programs led by Dr. Michael E. DeBakey of the Baylor University College of Medicine in Houston and Dr. Adrian Kantrowitz, chief of surgical services at Brooklyn's Maimonides Hospital. Other teams working on developing complete artificial hearts will continue their research, but the government will not emphasize their approach.

The decision to forego for the present a major program to build a complete artificial heart was made by Dr. James A. Shannon, NIH director, after he determined that not enough fundamental information existed on just how the heart operates to make such a project feasible.

Dr. Kantrowitz described the problems involved in designing artificial heart devices in a speech at a meeting of the American Society of Mechanical Engineers in New York.

"The heart is not a simple pumping device. It receives thousands of signals from other parts of the body," he said. "For example, when a good-looking blonde walks down the street, your heart speeds up. To make mechanical hearts respond to a blonde will not be so easy. It's better to leave the heart in place to respond to all these signals and make a mechanical pump as an auxiliary device to do most of the work."

Dr. DeBakey is working toward development of a device that would allow the heart to rest long enough for it to recover its strength and resume its role in the body without assistance. Dr. Kantrowitz is working toward development of an implantable auxiliary device that would permanently aid those whose hearts cannot function adequately alone. Both these approaches and others similar to them are of the type the institute wants to support.

"We want to develop both a family of highly efficient short term devices to tide people over acute heart attacks and also completely implantable heart-assist devices," a NIH spokesman said.

"Then, after this type of development is worked out and devices have been proven in clinical trials with a high degree of reliability and it looks like total heart replacement is feasible, we will push toward that goal."

Dr. Kantrowitz praised the partnership between physicians and engineers necessary in the artificial heart field, but he said efforts must be made to ensure that leadership in the research remain with the medical profession and not be given to engineers who do not fully understand the medical problems involved.

Obesity a Major Health Problem

Obesity has become a major health problem in the United States and a special health hazard for three obesity-prone groups, according to the Public Health Service.

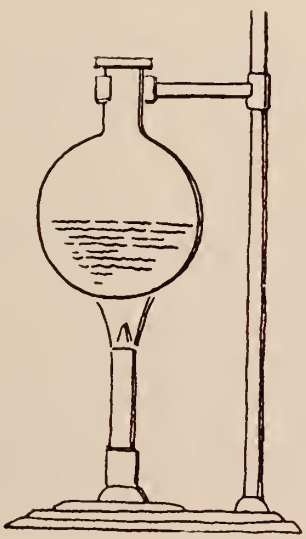
Quoting a new PHS source book for health professionals, Obesity and Health, the PHS said that the prevalence of obesity in this country is a source of growing medical concern because "fat people are more likely to develop certain diseases and to die at an earlier age than people of normal weight."

Prime candidates for the development of obesity and its attendant association with certain serious disorders and possible early death, according to the PHS, are:

1. Children whose relatives are obese: In one study, 73% of 1,000 obese patients had at least one obese parent.
2. Heavily built persons who also have corpulent tendencies: Obese individuals usually have a heavier physique than their non-obese counterparts. Large-boned and thickly muscled persons, particularly adolescents, who fit this description should be watched closely.
3. Persons who are becoming less active, more sedentary: Food intake does not decrease proportionately with decrease in energy expenditure. As activity decreases, for whatever reason, the risk of developing obesity increases.

The PHS said that while a substantial amount of obesity exists at every age in both sexes, obesity in children and adolescents is a particularly discouraging omen for the future.

"Obese children and adolescents are a major reservoir for obesity in adult life," the source book said. "They are more likely to remain obese as adults and to have more difficulty in losing fat and maintaining fat loss than people who become obese as adults."



for that added measure of protection

SIGNEM

A 'MAXIMUM SECURITY' ANTIBIOTIC*

* THE BROAD RANGE DEPENDABILITY OF TETRACYCLINE
long established as the broad-spectrum agent of first choice in a wide variety of infections

* WITH THE ADDED SECURITY OF MEDIUM-SPECTRUM REINFORCEMENT
triacetyloleandomycin is highly active against the common 'coccal' pathogens, including certain strains of staphylococci resistant to penicillin and tetracycline

* ESPECIALLY VALUABLE IN U.R.I.
provides decisive therapy in acute respiratory infections and other conditions in which staphylococci, streptococci or mixed flora are frequently encountered

* NOW AVAILABLE IN NEW STRENGTH FOR NEW CONVENIENCE AND ECONOMY
Signemycin 375—high-potency capsules for simpler administration, greater patient economy

CIN® 375

(tetracycline HCl 250 mg. triacetyloleandomycin 125 mg.)

cations: Indicated in the therapy of acute severe infec- caused by susceptible organisms and primarily by eria more sensitive to the combination than to either ponent alone. In any infection in which the patient can xpected to respond to a single antibiotic, the combina- is not recommended. Signemycin should not be used re a bacteriologically more effective or less toxic t is available. *Triacetyloleandomycin, a constituent of emycin, has been associated with deleterious changes ver function.* See precautions and adverse reactions.

raindications: Contraindicated in individuals who have vn hypersensitivity to any of its components. Not recom- ded for prophylaxis or in the management of infectious esses which may require more than 10 days of con- us therapy. If clinical judgement dictates therapy for r periods, serial monitoring of liver function is recom- ded. Not recommended for subjects who have shown rmal liver function tests, or hepatotoxic reactions to etyloleandomycin.

autions and Adverse Reactions: Triacetyloleandomycin, inistered to adults in daily oral doses of 1.0 gm. for 10 ore days, may produce hepatic dysfunction and jaun- Adults requiring 3 gm. of Signemycin initially should liver function followed carefully and the dosage should educed as promptly as possible to the usual recom- ded range of 1.0 to 2.0 gm. per day. Present clinical rience indicates that the observed changes in liver function are reversible after discontinuation of the drug. Use with caution in lower than usual doses in cases with renal impairment to avoid accumulation of tetracycline and possible liver toxicity. If therapy is prolonged under such circumstances, tetracycline serum levels may be advisable. In long term therapy or with intensive treatment or in known or suspected renal dysfunction, periodic laboratory evaluation of the hematopoietic, renal and hepatic systems should be done. Formation of an apparently harmless calcium complex with tetracycline in any bone forming tissue may occur. Use of tetracycline during tooth development (3rd trimester of pregnancy, infancy and early childhood) may cause discoloration of the teeth. Reversible increased intracranial pressure due to an unknown mechanism has been observed occasionally in infants receiving tetracycline. Glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis and definite allergic reactions occur rarely. Severe anaphylactoid reactions have been reported as due to triacetyloleandomycin. Photosensitivity and photoallergic reactions (due to the tetracycline) occur rarely. Medication should be discontinued when evidence of significant adverse side effects or reaction is present. Patients should be carefully observed for evidence of overgrowth of nonsusceptible organisms including fungi, which occurs occasionally, and which indicates this drug should be discontinued and appropriate therapy instituted. Steps should be taken to avoid masking syphilis when treating gonorrhea.



J. B. ROERIG DIVISION
CHAS. PFIZER & CO., INC.
235 EAST 42nd STREET
NEW YORK, N.Y. 10017



Now, now, Mrs. Forsythe, we've never lost a cold patient yet.

hen she's experiencing acute discomfort from cold symptoms, it's small wonder the patient becomes distressed out her condition.

e will breathe easier when you prescribe Novahistine LP.

ovahistine LP is a long-acting decongestant that helps restore normal mucus secretion and ciliary activity—physiogic mechanisms which prevent infection of the respiratory tract. A dose of two tablets taken in the morning d repeated in the evening will usually keep air passages clear for 24 hours.

se cautiously in individuals with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. ution patients who operate machinery or motor vehicles at drowsiness may result.

ch Novahistine LP tablet contains: phenylephrine hydroloride, 25 mg., and chlorpheniramine maleate, 4 mg.

DOW PITMAN-MOORE Division of The Dow Chemical Company, Indianapolis

NOVAHISTINE® LP

For relief of nasal congestion.



Saxon

Estomul does what standard anticholinergics fail to do—it provides a continuous climate for ulcer healing, eliminating the peaks and valleys of ordinary therapy. It is a comprehensive formulation providing sustained antisecretory effect on gastric activity. A recent study[1] reported a 56% satisfactory response with a maintenance schedule of Estomul in patients refractory to all previous medication. In less difficult peptic ulcer patients, a second study[2] noted a 94% satisfactory response. Both studies confirmed this clinical improvement radiologically. And both reported unusually prolonged reduction of basal secretion. With a maintenance course of Estomul therapy you can provide this continuous climate for healing in your own peptic ulcer patients.

A continuous climate for ulcer healing

(not simply episodic reduction of secretion or motility)

Estomul®



Tablets
Each swallow tablet contains: orphenadrine hydrochloride, 25 mg.; bismuth aluminate, 25 mg.; magnesium oxide, 45 mg.; aluminum hydroxide–magnesium carbonate (as co-precipitate), 500 mg.

Good-Tasting Liquid
Each tablespoon (15 cc.) contains: orphenadrine hydrochloride, 25 mg.; bismuth aluminate, 50 mg.; aluminum hydroxide–magnesium carbonate (as co-precipitate), 918 mg.

Dosage: 1 or 2 tablets or 1 or 2 tablespoons 3 times daily.

Supplied: In bottles of 100 tablets or 12 fluid oz..

Side Effects: Doses in excess of 6 tablets or 6 tablespoons daily may produce dryness of mouth or blurring of vision. Other possible side actions include: tachycardia, palpitation, urinary hesitancy or retention, dilatation of the pupil, increased ocular tension, weakness, nausea, vomiting, headache, dizziness, constipation, drowsiness, urticaria and other dermatoses. Infrequently, an elderly patient may experience some degree of mental confusion.

Contraindicated: In glaucoma, pyloric or duodenal obstruction, stenosing peptic ulcers, prostatic hypertrophy or obstruction at the bladder neck, achalasia and myasthenia gravis.

References: 1. McHardy, G. G., Judice, R. C., McHardy, R. J., and Cradic, H.: Southern Med. J. 59:459 (April) 1966. 2. Slanger, A.: Western Med. 6:205, 1965.

Riker Laboratories • Northridge, California 91324

Council and Committee Meetings

Committee on Mental Health met September 18 and November 13 and agreed to participate in a statewide survey to determine the extent of the problem of detention of the mentally ill in jails. The committee decided an official letter be written the Florida Association for Mental Health requesting assistance in preparation of a directory or guide for physicians regarding mental health laws, facilities and services. Possible problems resulting from the training programs of Florida junior colleges for subprofessional personnel in the mental health field were discussed and it was decided to obtain specific information from the State Department of Education regarding the extent and type of such training now being offered and, following study of this information, to consider reference of the problem of establishing needed standards for such personnel to the Board of Governors through the Council on Medical Services.

The committee elected to discontinue visitation on a committee basis to state institutions functioning in the mental health area. The 1966 annual Conference of Key State Mental Health Leaders was evaluated and found highly worthwhile; it was suggested that a representative from the State Division of Vocational Rehabilitation be invited to the next such conference because of that agency's increasing programs in the mental health area. The committee is sending a letter of inquiry concerning psychiatry courses for nonpsychiatric physicians to the University of Florida College of Medicine with carbon copies to the Florida Academy of General Practice, Florida Psychiatric Society, FMA Council on Medical Education and Hospitals, and Committee on Postgraduate Education.

Committee on Health Insurance met September 18 for the first time as newly constituted and recommended to the Board of Governors a restatement of the purpose and goals of the committee in order to establish a more effective committee and to improve liaison with the practicing physicians of Florida, the health insurance industry and the patient beneficiaries.

Committee on Aging met October 16 and endorsed the Council on Medical Services' recommendation that responsibility for liaison with nursing homes be reassigned to the Committee on Hospitals or to a new committee on extended care facilities under the Council on Medical Education and Hospitals. It was decided to request the State Board of Health to provide a list of Florida nursing homes certified for payment under Medicare for publication in the Journal. Consideration was given the role and objectives of the committee, and it was agreed that its primary efforts should be oriented toward geriatrics. It was suggested that the Committee on Indigent Care might more logically be part of the Council on Medical Economics than of the Council on Medical Services. The committee plans to confer with the State Board of Health Bureau of Adult Health and

Chronic Diseases about matters and studies of common interest.

Committee on Advisory to Blue Shield met October 16 and approved the recommendations of the Blue Shield Ad Hoc Committee on Pathology regarding payments to pathologists and further recommended that such recommendations be considered applicable to radiologists and other concerned physicians. The full text of the Ad Hoc Committee report appears under separate heading in this section.

Council on Legislation and Public Agencies met October 22 and recommended the FMA lend support in forming budgetary recommendations to the Florida legislature regarding the medical schools and support legislation exempting blood banks from any implied safety warranty of blood issued. It was mentioned that a workshop regarding state medical legislation for county medical society officers and legislative chairmen is to be held at the time of the January 28-29 Conference of County Medical Society Presidents and Secretaries at which the following items of the state legislative program for the 1967 session will be presented in detail: Title XIX, therapeutic abortion, a statewide medicolegal investigative system, consent for autopsies and emergency hospitalization of the mentally ill.

Council on Specialty Medicine met October 30 and discussed revision of the FMA 1962 Relative Value Studies. After reviewing recent actions taken by the Board of Governors, the council recommended that each specialty group provide any additional recommendations for revision and that development of the recommendations be based on a conversion factor of 5.0. The council approved in principle the Florida Society of Internal Medicine recommendations that Blue Cross-Blue Shield revise complementary coverage to encourage outpatient office care rather than hospital care, and that they do so prior to the next FMA Annual Meeting. The council approved a recommendation regarding definition of cosmetic as opposed to reconstructive surgery, and recognized that the Justice Department suit against the pathologists is significant enough to warrant financial assistance within legal limits.

Report of the Blue Shield Board of Directors Ad Hoc Committee on Pathology

Editor's Note: The report of a special Ad Hoc Committee on Pathology of the Blue Shield Board of Directors was approved by that Board at its meeting Novemher 12, 1966. The Blue Shield Board was also of the opinion that these same guidelines should be used for other physician specialists who have recently changed their method of hilling the public for their services; that the membership of the FMA would be interested in the contents of this report and the thoughts of the Board concerning the other specialties. The Journal therefore puhlishes the committee's report.

T. M.

This Committee was assigned the task of considering the request of the Florida Society of Pathologists that the fees submitted for services of hospital based pathologists be paid in their entirety to the pathologists. In a matter so complex and involving so much difference of opinion, it is necessary to restate fundamental principles before attempting any solution of the problem. The proper place to begin, therefore, is with a consideration of Blue Shield's function.

It is important to remember what Blue Shield does *not* do. Blue Shield is not the arbiter of medical morality. It does not set medical policy. Blue Shield does not decide who is capable of doing a procedure and who is not. It does not determine whether the procedure was indicated or not, or whether it was well done. It simply pays the doctor or indemnifies the patient wholly or in part for medical expenses he has incurred. In the opinion of this committee, this is the proper attitude for Blue Shield to take. There are other means within medical professional organizations to perform these functions: Tissue Committees, Utilization Committees, Boards of Censors, Judicial Councils, etc. Blue Shield did not create the pattern of medical practice. Its

(Continued)

when congestion is complicated by sulfa-susceptible bacterial invaders in the upper respiratory tract...



re-enforce your decongestant therapy

prescribe economical Trisulfaminic®

Each tablet contains: Triaminic® 25 mg. (phenylpropanolamine hydrochloride 12.5 mg., pheniramine maleate 6.25 mg., pyrilamine maleate 6.25 mg.); Trisulfapyrimidines, U.S.P. 0.5 Gm. (sulfadiazine 0.167 Gm., sulfamerazine 0.167 Gm., sulfamethazine 0.167 Gm.)

PHARMACOLOGY: Triaminic decongests and promotes drainage of nasal and paranasal passages, and prevents any further histamine-induced damage; the triple sulfonamides inhibit susceptible bacterial invaders. INDICATIONS: For congestion and infection of the upper respiratory tract caused by sulfa-susceptible organisms. DOSAGE: Adults: 2 to 4 tablets initially, followed by 2 tablets every 6 hours. Medication should be continued until patient has been afebrile for 3 days. ADVANTAGES: The advantages of Trisulfaminic in upper respiratory infections are: freedom from narcotics or alcohol; therapeutic reliability; safety; economy; ease of administration; freedom from potential sensitization to broad-spectrum antibiotics which may be reserved for lower respiratory or other infections caused by susceptible organisms. CONTRAINDICATIONS: Contraindicated in sulfonamide and antihistamine sensitivity, impaired renal function, pregnancy approaching term, and in premature infants and newborn infants during the first month of life. Do not use in patients with glaucoma, prostatic hypertrophy, stenosing peptic ulcer, pyloroduodenal or bladder neck obstruction. WARNING: Use only after careful evaluation in patients with liver or renal damage, urinary obstruction, or blood dyscrasias. Deaths have been reported from hypersensitivity reactions with administration of sulfonamides. In intermittent or prolonged therapy, blood counts and liver and kidney function tests should be performed periodically. Sulfonamide therapy may potentiate the hypoglycemic action of sulfonylureas. PRECAUTIONS: Use with caution in patients with histories of significant allergy or asthma. Assure an adequate fluid intake. Because the antihistamines may cause drowsiness of varying degree, warn patients about activities requiring alertness such as driving a car or operating dangerous machinery. Use with caution in the presence of hypertension, hyperthyroidism, cardiovascular disease and diabetes. ADVERSE REACTIONS: As in all sulfonamide therapy, the following reactions may occur: headache, nausea, vomiting, diarrhea, icterus, hepatitis, pancreatitis, urticaria, rash, fever, cyanosis, hematuria, crystalluria, proteinuria, blood dyscrasias, petechiae, purpura, neuropathy and injection of the conjunctiva and sclera. If one or more of these reactions occur, the drug should be discontinued. With antihistaminic therapy there have been reports of sedation varying from mild drowsiness to deep sleep, dizziness, lassitude, inability to concentrate, fatigue, incoordination, tinnitus, blurred vision, diplopia, euphoria, nervousness, insomnia, tremors, palpitation, hypotension, headache, chest tightness, urinary frequency, dysuria, tingling of the hands, dryness of the mouth, throat, and nose, gastrointestinal disturbances such as epigastric distress, anorexia, nausea, vomiting, constipation and diarrhea and very rarely, leukopenia and agranulocytosis. Adverse reactions reported with the use of sympathomimetic amines include anxiety, tension, restlessness, nervousness, tremor, weakness, insomnia, headache, palpitation, tachycardia, angina, elevation of blood pressure, sweating, mydriasis, anorexia, nausea, vomiting, dizziness, constipation, and dysuria due to vesicle sphincter spasm. PACKAGE INFORMATION: Trisulfaminic Tablets: Supplied in bottles of 100 tablets. CAUTION: Federal law prohibits dispensing without prescription.

DORSEY LABORATORIES • *a division of The Wander Company* • **LINCOLN, NEBRASKA**

Against these three major pathogens...



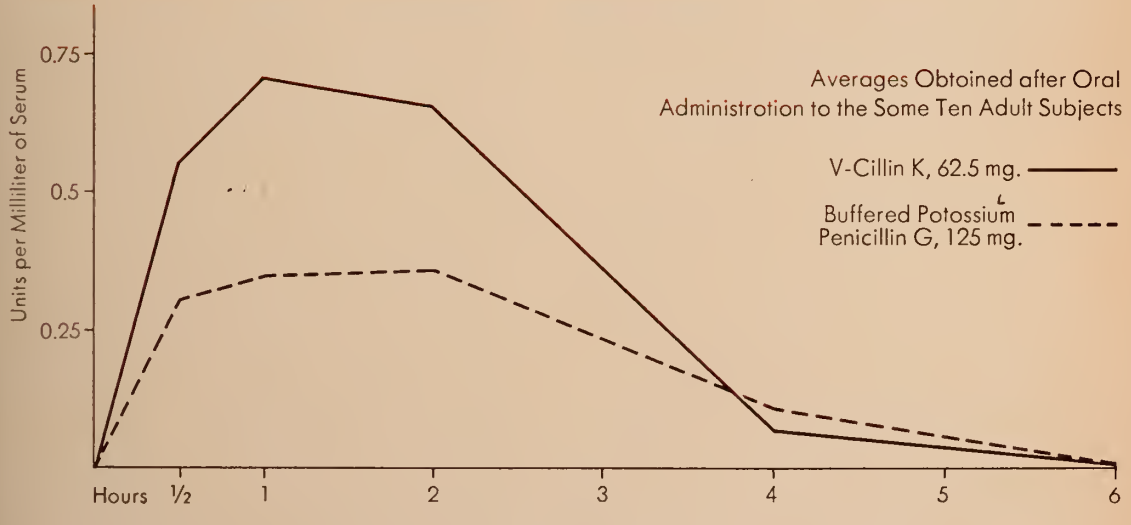
V-Cillin K® provides unexcelled oral antibacterial activity

because it combines a high degree of in-vitro activity...

Antibiotic	Stoph. Aureus (Penicillin-Sensitive) MIC (mcg./ml.) Median	Range	Streptococcus, Group A MIC (mcg./ml.) Median	Range	Diplococcus Pneumonioe MIC (mcg./ml.) Median	Range
Penicillin V	0.02	0.02-0.04	0.02	0.003-0.4	0.01	0.005-0.2
Penicillin G	0.02	0.005-1.6	0.005	0.002-0.2	0.02	0.01-0.1
Methicillin	1.6	0.4-6.3	0.2	0.1-0.4	0.2	0.1-1.6
Oxocillin	0.4	0.1-3.1	0.04	0.02-0.4	0.1	0.04-0.8
Cloxacillin	0.2	0.2-0.8	0.1	0.1-0.8	—	—
Nofcillin	0.4	0.2-0.8	0.04	0.02-0.1	0.02	0.02-0.2
Ampicillin	0.2	0.1-0.8	0.02	0.01-0.04	0.02	0.01-0.04

Adapted from Klein, J. O., and Finland, M.: New England J. Med.,269 1019, 1963.

with high blood levels, even in the presence of food



Adapted from Griffith, R. S., and Black, H. R Current Ther. Res., 6 253, 1964.

V-Cillin K®

Lilly 700157

Potassium Phenoxymethyl Penicillin

(See next page for prescribing informa

New 500 mg. tablets...a more convenient way to give high doses



Description: V-Cillin K is the potassium salt of V-Cillin® (phenoxymethyl penicillin, Lilly). This chemically improved form combines acid stability with immediate solubility and rapid absorption. Higher serum levels are obtained more rapidly with this penicillin than with equal oral doses of penicillin G. The higher serum levels and acid stability of V-Cillin K make it a more dependable penicillin for oral use.

V-Cillin K, Pediatric, is an oral solution of clinically proved V-Cillin K in teaspoon dosage form. When mixed as directed, each 5 cc. (approximately one teaspoonful) will contain 125 mg. (200,000 units) phenoxymethyl penicillin as the potassium salt.

Indications: V-Cillin K has been shown to be effective in the treatment of streptococcus, pneumococcus, and gonococcus infections as well as infections caused by sensitive strains of staphylococci. It may be used for the prophylaxis of streptococcus infections in patients with a history of rheumatic fever and for the prevention of bacterial endocarditis after tonsillectomy and tooth extraction in those patients with a history of rheumatic fever or congenital heart disease.

Contraindication: V-Cillin K should not be administered to a patient with a history of penicillin hypersensitivity.

Precautions: V-Cillin K should be used cautiously, if at all, in a patient with a strongly positive history of allergy. Reactions occur more frequently in individuals with bronchial asthma or other allergies or in those who have previously demonstrated sensitivity to penici hypersensitivity reactions occur, the drug should be discontinued

Adverse Reactions: Although serious allergic reactions are n less common with administration of oral penicillin than with intram lar forms, skin rash, symptoms resembling those of serum sickness other manifestations of penicillin allergy may occur. When penicil administered, measures for treating anaphylaxis should be rea available. Those include epinephrine, oxygen, and pressor drug relief of immediote allergic manifestotions as well as antihistam and corticosteroids for delayed effects.

The use of antimicrobial agents may be associated with the g growth of antibiotic-resistant organisms; in such a case, antibiotic ministration should be stopped and appropriate measures taken.

Administration and Dosage: For Tablets V-Cillin K and for V-C K, Pediatric, the usual dosage ranges from 125 mg. (200,000 u three times a day to 500 mg. (800,000 units) every four hours. Fo fants, the daily dosage may be 50 mg. per Kg. of body weight d into three doses.

Beta-hemolytic streptococcus infections without associated b remia may be treated with 200,000 to 400,000 units three times o Therapy should be continued for a minimum of ten days to preven velopment of rheumatic fever and/or other serious complications. age for routine streptococcus prophylaxis in patients with a histo rheumatic fever or congenital heart disease may be 200,000 units or twice daily. When such patients undergo tonsillectomy, tooth ex tion, or other minor surgery, the prophylactic dose should be 50 units every six hours given two days prior to surgery and for two postoperatively. If oral medication is not feasible on the day o gery, parenteral therapy should be considered. Mild to moder severe pneumococcus pneumonia has been treated effectively 250 mg. every six hours.

In staphylococcus infections, 400,000 units or more should be every six to eight hours in conjunction with indicated surgical p dures.

For gonorrhea in males, 500 mg. (800,000 units) every six hou three doses may be employed; in females, 500 mg. every four hou six doses are recommended. Patients with a suspected lesion of sy should have a dark-field examination before receiving penicillin monthly serologic tests for a minimum of three months.

How Supplied: Tablets V-Cillin K, U.S.P., 125 mg. (200,000 unit bottles of 50 and 100; 250 mg. (400,000 units), and 500 mg. (80 units) in bottles of 24 and 100.

V-Cillin K, Pediatric, for Oral Solution, 125 mg. (200,000 units 5 cc. of solution, in 40, 80, and 150-cc.-size packages.

Additional information available to physicians upon request. Eli Lilly and Company, Indianapolis, Indiana 46206.

Lil

policies have been adopted in recognition of existing conditions and changes have been made from time to time to conform to changing medical practice.

The problem presented to the Board by the pathologists must be considered in light of several facts. Right or wrong, good or bad, a large majority of the pathologists in Florida have had a relationship with hospitals whereby the hospitals billed the patients for the pathologists' services. To complicate further the present solution of the problem, it is all too apparent that with many pathologists this is still a satisfactory arrangement. While there have been occasional indications of dissatisfaction among pathologists in this arrangement, until the advent of Medicare there have been little or no representations to Blue Shield that this was the case. In contrast, there has been almost continuous activity since 1959 by the radiologists to achieve separate billing for their services and to attain a position of independence. As a consequence of these efforts some of the problems inherent in making this change have been ironed out. Much of this activity will be of benefit to the pathologists, but there are problems peculiar to that specialty which call for special consideration.

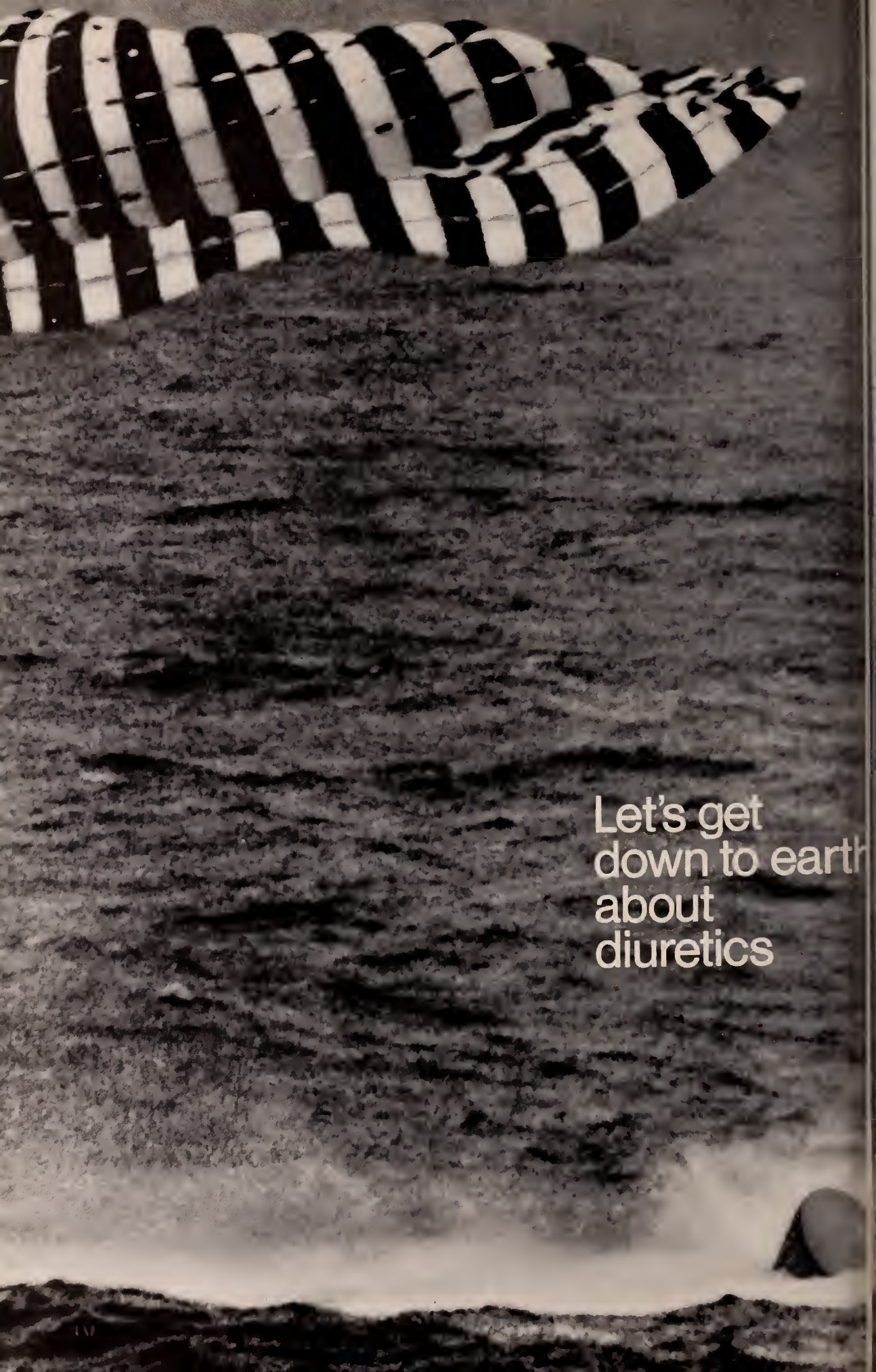
As should be well known and understood to every participating physician, Blue Shield and Blue Cross are two separate and distinct corporations with different Boards of Directors, but with common administration and selling of complementary medical payments and hospitalization insurance. As with any insurance, premium rates are determined by the scope of benefits and incidence of claims. Stated simply, income must be equal to outgo. Since Blue Shield outgo, including payments for claims, operating expenses and reserves, very closely approximates 100%, no money can be paid for benefits for which a premium has not been collected. In recognition of the existing practice of billing for pathology services by hospitals rather than by doctors, Blue Cross pays over 95% of the claims submitted for laboratory services and, accordingly, collects their premiums. Blue Cross has agreed, for a period of one year, to make appropriate transfer of funds to Blue Shield for payments of services by Blue Shield for which Blue Cross has collected a premium, but it is important to recognize that any change in handling of benefits of existing Blue Cross contracts requires the consent of the Blue Cross Board, a Board composed largely of hospital administrators. In short, Blue Shield is accorded a respectful ear by Blue Cross, but Blue Shield no more controls Blue Cross policies than Blue Cross does Blue Shield. Where differences occur, this arrangement sometimes creates a problem, but in our opinion it is one which best serves the interests of doctors.

The committee is sympathetic with the problem of the pathologists which, in essence, is a problem for all physicians. We do not have any panacea to offer, nor do we suggest that the solutions we do offer to the immediate problem are good. In light of our appraisal of existing conditions, we do feel that the following recommendations are reasonable and are consistent with Blue Shield policy and existing medical practice.

Committee Recommendations

1. A restatement of the policy of May 11, 1966.
2. Where a pathologist is in independent practice, whether this be in his own office or in a hospital (a lease agreement would qualify), he should be paid for any of his charges in accordance with Blue Shield liability under its several contracts.
3. Where a pathologist has a working agreement with a hospital and bills separately for the professional part of the pathology fee, Blue Shield should pay to him directly the professional part of the fee.
4. Where a hospital bills for the entire amount of the fee for pathology services, Blue Shield should have no liability.
5. Insofar as payment for pathology and laboratory service fees are concerned, the same criteria should be applied to the pathologists with hospital lease agreements as to the pathologists in private practice; that is, all services for payment of which Blue Shield is liable should be paid whether personally rendered by the pathologist or simply bearing the stamp of his approval.

Robert E. Zellner, M.D., Chairman
Leo M. Wachtel, M.D.
William J. Dean, M.D.


Let's get
down to earth
about
diuretics

With Hygroton, you'll discover that you can almost always use fewer tablets than is possible with other diuretics.

You may be told that a new short-acting diuretic was found more effective than Hygroton in congestive heart failure—but this was when twice the manufacturer's maximum recommended dose was given.* At the maximum recommended dose for both diuretics, two tablets of Hygroton were far and away more effective than five tablets of the other diuretic in producing natruresis and weight loss. And at these dosages, Hygroton costs only ⅓ as much as the other diuretic.

Since the discovery of chlorothiazide, the trend has been away from short-acting, multiple-dose, high-cost diuretics. With Hygroton you can usually do the job with just one tablet a day, or every other day.

More than any of the newer diuretics, Hygroton brings dosage and cost of medication down to earth.

*Brest, A. N., et al.:J. New Drugs 5:329, 1965.

Hygroton®
chlorthalidone

Indications: Hypertension and many types of edema involving retention of salt and water. **Contraindications:** Hypersensitivity and most cases of severe renal or hepatic disease. **Warning:** With administration of enteric-coated potassium supplements, the possibility of small bowel lesions should be kept in mind. **Precautions:** Reduce dosage of concomitant antihypertensive agents by at least one-half. Discontinue if the BUN rises or liver dysfunction is aggravated. Electrolyte imbalance and potassium depletion may occur; take special care in cirrhosis or severe ischemic heart disease, and in patients receiving corticosteroids, ACTH, or digitalis. Salt restriction is not recommended. **Side Effects:** Dizziness, weakness, nausea, vomiting, hyperglycemia, hyperuricemia, headache, muscle cramps, postural hypotension, constipation, leukopenia, thrombocytopenia, agranulocytosis, impotence, dysuria, transient myopia, skin reactions, including urticaria and purpura, epigastric pain, or G.I. symptoms after prolonged administration. **Average Dosage:** One tablet (100 mg.) with breakfast daily or every other day. **Availability:** Tablets of 100 mg. in bottles of 100 and 1000. For full details, see the complete prescribing information. 6524-V(B)

HY-4735

Geigy Pharmaceuticals
Division of Geigy Chemical Corporation, Ardsley, New York

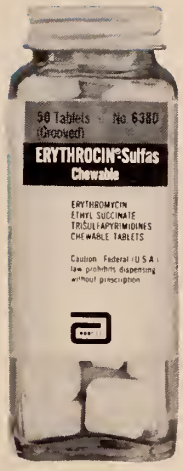
Geigy



Perhaps there have been times when you wanted to prescribe erythromycin and triple sulfas for little patients. Now you can—with a choice of two new fine-tasting pediatric forms.

New–Two Pediatric Forms of Erythromycin and Triple Sulfas





ERYTHROCIN®-SULFAS Chewable (Erythromycin ethyl succinate-trisulfapyrimidines chewable tablet)

In clinical trials[1,2], this orange-flavored tablet was given to 55 patients, aged four months to 18 years.

The diagnoses (multiple in some cases) represented a cross section of bacterial infections commonly seen in pediatric office practice.

Therapy was given from three to 12 days, with an average of six days.

Of the 55 patients, 30 were reported cured within 72 hours, while 22 showed partial recovery within the same time, and subsequent clinical cure.

A clinical cure rate of 94.5%

ERYTHROCIN®-SULFAS Granules (Erythromycin ethyl succinate-trisulfapyrimidines granules for oral suspension)

87 patients were treated[1,2]—all children, ages four months to 15 years.

The diagnoses were multiple in some cases and were chiefly bacterial infections of the respiratory tract.

Dosage was maintained from three to 10 days; average treatment was five days. All of the ill children accepted the orange-flavored suspension favorably.

53 were clinically cured within 72 hours, while 32 showed partial relief within the same time, and subsequent clinical cure.

701358

A clinical cure rate of 97.7%

1. Case Reports on File, Dept. Clin. Development, Abbott Laboratories.
2. Polley, R.F.L., Use of Erythromycin-Sulfas in Office Practice, Western Med., 7:177, July, 1966.

ABBOTT

Brief Summary on next page

ERYTHROCIN®-SULFAS
Brief Summary

Contraindications: Known sensitivity to erythromycin or sulfonamides. Because of the possibility of kernicterus with sulfonamides, do not use in pregnancy at term, premature or newborn infants.

Warnings: As with other forms of sulfonamide therapy, carefully evaluate patients with liver or kidney damage, urinary obstruction, or blood dyscrasia. Deaths have been reported from hypersensitivity reactions and blood dyscrasias following use of sulfonamides. Perform blood counts and liver and kidney function tests if used repeatedly at close intervals or for long periods.

Precautions, Side Effects: Occasionally mild abdominal discomfort, nausea or vomiting may occur with erythromycin, generally controlled by reduction of dosage. Mild allergic reactions (such as urticaria and other skin rashes) may occur. Serious allergic reactions have been extremely infrequent. Use sulfonamides with caution in patients with a history of allergy. Assure adequate fluid intake to prevent crystalluria and institute alkali therapy if indicated. If overgrowth of nonsusceptible organisms occurs, withdraw the drug and institute appropriate treatment. If a patient should show signs of hypersensitivity, appropriate countermeasures (e.g. epinephrine, steriods, etc.) should be administered and the drug withdrawn.

Adverse Reactions: Sulfonamide therapy may be associated with headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, skin rash, injection of the conjunctiva and sclera, petechiae, purpura, hematuria and crystalluria.

Side effects due to erythromycin are infrequent, but occasional abdominal discomfort, nausea, or vomiting, urticaria and other skin rashes may occur.

Supplied: The Granules for Oral Suspension come in bottles of 60 ml. and 150 ml. The Chewable tablets are in bottles of 50. Each 5-ml. teaspoonful of reconstituted Granules or each Chewable tablet provides erythromycin ethyl succinate equivalent to 125 mg. of erythromycin activity and 167 mg. of each of sulfadiazine, sulfamerazine and sulfamethazine.

701358

ABBOTT

DIARRHEA
MUCOUS COLITIS
DIVERTICULITIS
SPASTIC URETERITIS
BLADDER SPASM

are relieved with.....

Trocinate®

BRAND THIPHENAMIL HCl

Minimum dosage 400 mg., q. 4 h. until relief is constant, adjust maintenance dosage.

A therapeutic blood level cannot be obtained with small dosage. Trocinate is metabolized and eliminated in the urine as harmless degradation products—a safety factor. Sixteen years of clinical usage with the absence of untoward effects establishes the safety of Trocinate. The autonomic nervous system is not involved in its prompt action.

NOW AVAILABLE IN 2 STRENGTHS,
100 mg. and 400 mg.
PINK SUGAR-COATED TABLETS

Literature and samples available.

WM. P. POYTHRESS & CO., INC.
RICHMOND, VIRGINIA 23217

Manufacturers of ethical pharmaceuticals since 1856

HAVE YOU MARKED YOUR CALENDAR?

Florida Medical Association

93rd Annual Meeting

May 11-14, 1967

Americana Hotel

Bal Harbour

HIGHLAND HOSPITAL

ASHEVILLE, NORTH CAROLINA

Founded 1904

A DIVISION OF THE DEPARTMENT OF PSYCHIATRY
OF DUKE UNIVERSITY

Accredited by the Joint Commission on Accreditation and Certified for Medicare

Complete facilities for evaluation of and intensive treatment of psychiatric patients, including individual psychotherapy, group therapy, psychodrama, electro-convulsive therapy, Indoklon convulsive therapy, drugs, social service work with families, family therapy, and an extensive and well organized activities program, including occupational therapy, art therapy, athletic activities and games, recreational activities and outings. The treatment program of each patient is carefully supervised in order that the therapeutic needs of each patient may be realized.

Complete modern facilities with 85 acres of landscaped and wooded grounds in the City of Asheville.

Brochures and information on financial arrangements available
Contact: Mrs. Elizabeth Harkins, ACSW, Coordinator of Admissions

or

Charles W. Neville, Jr., M.D.
Assistant Professor of Psychiatry and Medical Director
Area Code 704 - 253-2761

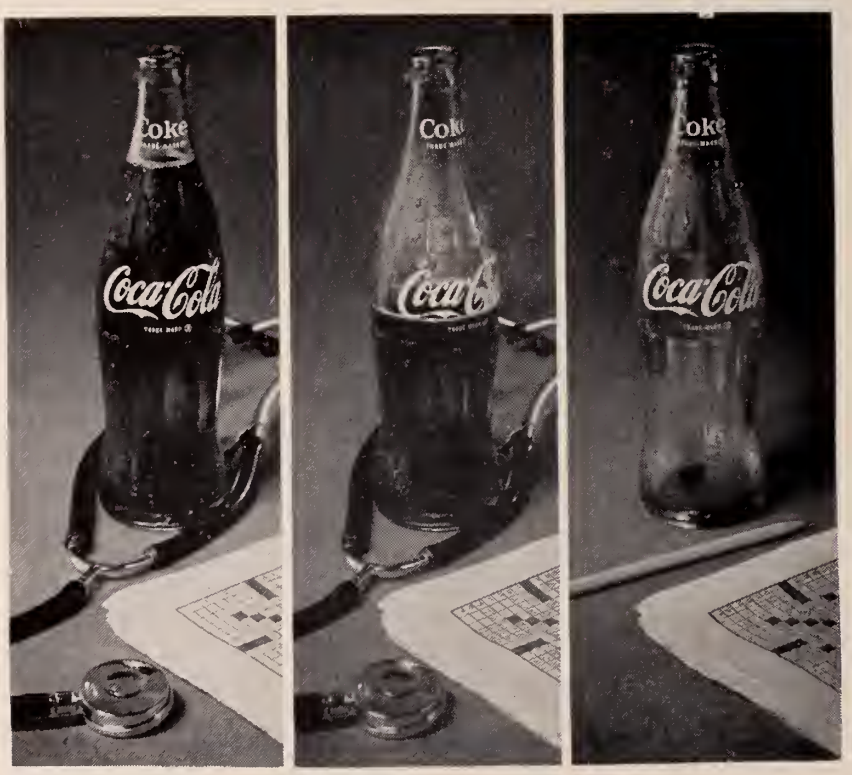


Ballast Point Manor

5226 Nichols St., P. O. Box 13467 Phone 831-4191
Tampa, Florida

Don Savage, Owner-Manager

Care of mild mental cases, senile disorders and invalids. Alcoholics treated. Aged adjudged cases will be accepted on either permanent or temporary basis.



11:47 pm 11:53 pm 12:06 am

The meaningful pause. The energy it gives. The bright little lift. Coca-Cola with its never too sweet taste, refreshes best. Helps people meet the stress of the busy hours. This is why we say things go better with Coke TRADE-MARK®

The AMBAR SCRAPBOOK of Obesity Oddities
FACT & LEGEND



GALLSTONES HAVE BEEN FOUND IN 60% OF PATIENTS WHO WEIGH MORE THAN 300 POUNDS. 45% HAVE DIABETES, AND 15-TO-20% HAVE HIGH BLOOD PRESSURE.
SOURCE: DUNCAN, G.G.: SCIENCE NEWS LETTER, 83:403 (JUNE 29) 1963.

NAPOLÉON BONAPARTE
LOST THE BATTLE OF WATERLOO BECAUSE HE WAS TOO FAT!

ACCORDING TO THE NEW YORK TIMES OF APRIL 13, 1890, THE DEFEAT OCCURRED BECAUSE HE FAILED TO CHECK HIS INTELLIGENCE INFORMATION. "IT WAS A MATTER OF MERE INDOLENCE AND THIS INDOLENCE WAS CAUSED BY FAT."
SOURCE: JAMA 186:65 (OCT. 5) 1963.



THE BOOK *"PRAY YOUR WEIGHT AWAY"* URGES READERS TO "ASK GOD TO HELP YOU LIKE EXERCISE" FOR 15 MINUTES A DAY.
SOURCE: REV. C.W. SHEDD: NEW YORK LIPPINCOTT, 1958.



DIET DROPOUTS

ACCORDING TO DRS. SHIPMAN AND PLESSET "APPARENTLY NO DIETER SUCCEEDS WHO IS VERY ANXIOUS OR DEPRESSED."*

THE AMBAR FORMULA PROVIDES **METHAMPHETAMINE** TO HELP **ELEVATE** THE **MOOD** AND **PHENOBARBITAL** TO HELP REDUCE **ANXIETY.**

*SOURCE: ARCHIVES OF GENERAL PSYCHIATRY 8:26 (JUNE 1963).

CONTROL FOOD AND MOOD ALL DAY LONG WITH A SINGLE MORNING DOSE

One Ambar Extentab before breakfast can help control most patients' appetite for up to 12 hours. Methamphetamine, the appetite suppressant, gently elevates mood and helps overcome dieting frustrations. Phenobarbital, the sedative in Ambar, controls irritability and anxiety ...helps maintain a state of mental calm and equanimity. Both work together to ease the tensions that erode the willpower during periods of dieting.

Also available: Ambar #1 Extenabs® – methamphetamine hydrochloride 10 mg., phenobarbital 64.8 mg. (1 gr.) (Warning: may be habit forming).

Ambar® #2 Extentabs®
methamphetamine HCl 15 mg., phenobarbital 64.8 mg. (1 gr.)
(Warning: may be habit forming)

BRIEF SUMMARY—**Indications:** Ambar suppresses appetite and helps offset emotional reactions to dieting. **Side Effects:** Nervousness or excitement occasionally noted, but usually infrequent at recommended dosages. Slight drowsiness has been reported rarely. **Precautions:** Administer with caution in the presence of cardiovascular disease or hypertension. **Contraindications:** Hypersensitivity to barbiturates or sympathomimetics; patients with advanced renal or hepatic disease. See package insert for further details.

A. H. ROBINS CO., Richmond, Virginia 23220 A·H·ROBINS



in sinusitis, colds, U. R. I.

Dimetapp® Extentabs®

(Dimetane® [brompheniramine maleate], 12 mg.; phenylephrine HCl, 15 mg.; phenylpropanolamine HCl, 15 mg.)

up to 10-12 hours clear breathing on one tablet

It's clear—Dimetapp lets your "stuffed-up" patients breathe easy again. Each hard-working Extentab brings welcome relief from the stuffiness, drip and congestion of upper respiratory conditions for up to 10-12 hours. Yet, patients seldom experience drowsiness or overstimulation. The key to success is the Dimetapp formula: Dimetane (brompheniramine maleate)—along with phenylephrine and phenylpropanolamine, two time-tested decongestants. They get the job done... in a hurry.

Contraindications: Hypersensitivity to antihistamines. Not recommended for use during pregnancy. **Precautions:** Until patient's response has been determined, he should be cautioned against engaging in operations requiring alertness. Administer with care to patients with cardiac or peripheral vascular diseases or hypertension. **Side Effects:** Hypersensitivity reactions including skin rashes, urticaria, hypotension and thrombocytopenia have been reported on rare occasions. Drowsiness, lassitude, nausea, giddiness, dryness of the mouth, mydriasis, increased irritability or excitement may be encountered.
Dosage: 1 Extentab morning and evening. **Supplied:** Bottles of 100 and 500.

A. H. ROBINS CO., Richmond, Virginia 23220

A·H·ROBINS



P. L. DODGE MEMORIAL HOSPITAL

M. G. Isaacson, M.D.
Medical Director
1861 N.W. South River Drive
Miami, Florida
Phone 379-1448

A nonprofit-voluntary hospital for the treatment of nervous and mental disorders and the problems of drug addiction and alcoholic habituation. Modern diagnostic and treatment procedures including—Psychotherapy, Insulin, & Electroshock, when indicated. Adequate facilities for recreation and out-door activities. Admissions are made without regard to race, color or national origin.

Information on request
Member NAPPH, American Psychiatric Assn., & American Hospital Assn.

Convention Press

2111 North Liberty St.
Jacksonville, Florida
32206

QUALITY BOOK PRINTING
PUBLICATIONS BROCHURES

Whatever your first requisites may be, we always endeavor to maintain a standard of quality in keeping with our reputation for fine work —and at the same time provide the service desired. Let Convention Press help solve your printing problems by intelligently assisting on all details.

Anderson Surgical Supply Co.

Established 1916

Distributors of Known Brands of Proven Quality

TELEPHONE 229-8504
Morgan at Platt, P. O. Box 1228
TAMPA, FLORIDA 33601

TELEPHONE 896-3107
556 9th St., South
ST. PETERSBURG, FLORIDA

TELEPHONE 376-8253
236 S.W. 4th Ave.
GAINESVILLE, FLORIDA

TELEPHONE CHerry 1-9589
1818 N. Orange Ave.
ORLANDO, FLORIDA

This "case history" runs to some 10,000 pages

This is a typical "case history" of one new drug—or, rather, a proposed new drug—assembled for submission to the U.S. Federal Food and Drug Administration. These volumes are the result of several years' work by thousands of professional and skilled personnel in just one pharmaceutical company's research laboratories, and by hundreds of physicians in medical schools, hospitals, and private practice. They cover every aspect of experience with this proposed new agent from chemical laboratory to clinic, from mouse to man. Each volume could conceivably represent hundreds of thousands of dollars of financial investment, countless hours of human effort. This veritable mountain of data stands behind every new agent offered to you by pharmaceutical manufacturers—a reassuring testimonial to the efficacy, safety and purity of the drugs you will prescribe today to lower the cost of disease to your patients.

Pharmaceutical Manufacturers Association
Pharmaceutical Advertising Council

1155 Fifteenth St., N W., Washington, D.C. 20005



This message is brought to you as a courtesy of this publication on behalf of the producers of prescription drugs.


This space
reserved
for
additions
to the
TUBEX
system

Only **TUBEX** offers so complete a line of closed-system injectables, and it's still growing

—no other system is safer

—no other system is more efficient

—no other system offers more convenience

—no other system assures greater patient comfort

TUBEX sterile cartridge-needle units are prefilled with measured doses. Each unit is used once, and discarded. This eliminates danger of cross contamination, as well as problems of sterilization, storage, and measurement. Ultra-sharp, siliconized needles keep patient discomfort to a minimum. No other injectable system is easier to use, easier to store, easier to carry.

JUST ARRIVED!

4 New TUBEX® Sterile
Cartridge-Needle Units
Vitamin B Complex with Vitamin B_{12}
Hydroxocobalamin, 100 mcg./cc.
Hydroxocobalamin, 1000 mcg./cc.
Thiamine HCl, U.S.P., 100 mg./cc.

TUBEX®

Wyeth® SERVICE TO MEDICINE

Closed Injection System
Sterile Cartridge-Needle Unit
Hypodermic Syringe
Wyeth Laboratories • Philadelphia, Pa.



Index to Advertisers

Abbott Laboratories
Erythrocin Sulfas 176-78

Ames Co., Inc.
Dextrostix 148a

Anderson Surgical Supply Co. 181

Appalachian Hall 150

Ballast Point Manor 180

Bristol Laboratories
Tetrex F. 108

Brown Pharmaceutical Co.
Cerebro-Nicin 152

Burroughs-Wellcome Co.
Empirin 108a

Ciba Pharmaceuticals
Otrivin 148a

Coca-Cola Co. 180

Cole Pharmacal Co.
Iodo-Niacin 157

Convention Press 181

Dorsey Laboratories
Triaminic 100a
Trisulfaminic 172a
Tussagesic 100a

DuPont
Symmetrel 140a

Duvall Home 185

Geigy Pharmaceuticals
Hygroton 174-75

Highland Hospital, Inc. 179

Hill Crest Hospital 149

Hynson, Westcott & Dunning, Inc.
BSP Disposable Unit 95

Lakeside Laboratories, Inc.
Cantil 109
Imferon 148
Mercuhydrin 101
Norpramin 100

Lederle Laboratories
Bamadex 140a, 141
Declomycin 140a
Stresscaps 153

Eli Lilly & Co.
Cordran 110
Ilosone 108a
Tuinal 156a
V-Cillin K 172a

Medical Supply Co. 156

William S. Merrell Co.
Alertonic 106-07

Neisler Laboratories
Diutensen-R . . . . . Third Cover

Parke-Davis & Co.
Chloromycetin . . . . . Second Cover

Pitman-Moore Co.
Novahistine LP 168-69

P. L. Dodge Memorial Hospital 181

PM of Florida 156

William P. Poythress & Co.
Trocinate 178

Riker
Estomul 170

A. H. Robins, Inc.
Ambar/Dimetapp 180a

Roche Laboratories
Ganatol 148a
Librium . . . . . Back Cover

Wm. H. Rorer, Inc.
Emetrol 150
Novestrol 98-99
Parepectolin 163

G. D. Searle Co.
Lomotil 140a

Smith, Kline & French
Ornade Spansule 156a

Stamas Boats 156a

Syntex Laboratories
Neo-Synalar 158-59
Norinyl 102-03

Surgical Supply Co. 149

Tucker Hospital, Inc. 152

Valentine Co., Inc. 156

Winthrop Laboratories
Neo-Synephrine 96

Wyeth Laboratories
Equagesic 154-55
Pen-Vee K 142
Serax 104-05
Tubex 182a

Classified Advertisements

Advertising rates for this column are $5.00 per insertion for ads of 25 words or less. Add 20¢ for each additional word.

physicians wanted

General Practitioners

GENERAL PRACTITIONER WANTED (AAGP) for north Florida college town. Vacancy in busy two man practice in medicine, pediatrics and obstetrics. Immediate excellent income with eventual full partnership. Write C-614, P.O. Box 2411, Jacksonville, Fla. 32203.

GENERAL PRACTITIONER WANTED: Orlando, Orange County, East Central. Florida license required. Full time opening in county-supported medical clinic. Contact B. S. Webster, M.D., Medical Director, Orange County Medical Clinic, 832 W. Central Ave., Orlando 32805. Phone 241-4311, ext. 364.

PHYSICIAN NEEDED: Sun City Center, Del E. Webb Corporation-built retirement community, 1,700 persons, south of Tampa, has urgent need of physician, either general practice or geriatrics. For first year will provide 1,300 sq. ft., rent-free office; will pay utilities; will provide exclusive use of new equipment worth $27,000; will assist in locating suitable residence. Contact R. J. Jones, P. O. Box 5016, Sun City Center, Florida 33571.

EXCELLENT OPPORTUNITY for general practitioner in community of 15,000; central Florida; 76 bed JCAH hospital. Write or call collect R. C. Thompson, Bartow Memorial Hospital, Bartow, Fla.

GENERAL PRACTITIONER needed in growing surburban area of over 7,000, east of Orlando presently without M.D. Area site of new Florida Technological University to be opened 1968. Office space will be built. Contact H. Wayne Todd, D.D.S., 10043 E. Colonial Dr., Orlando 32807. Phone (305) 277-9420.

WANTED: General Practitioner for immediate occupancy as an associate with well established elderly G.P. Good prospect for future ownership. Well equipped office. New hospital under construction. Good nurse available. Write or phone: C. H. Kirkpatrick, M.D., Arcadia, Fla. 33821. Phone WA8-5311.

WANTED: General practitioner associate, leading to partnership. Practice approximately one half industrial. Ideal central Florida community. Send detailed resume to C-716, P.O. Box 2411, Jacksonville, Fla. 32203.

WANTED: General practitioner for north Florida beach resort city. Rapid growth. Facilities and other generous financial incentives offered. Write P.O. Box 9190, Panama City Beach, Florida 32401.

WANTED: General Practitioner to join group for partnership in Miami area. Starting salary $16,500. Florida license required. Write Medical Business Consultants, 9999 N.E. 2nd Avenue, Miami Shores, Fla. 33138.

Locum Tenens

Locum Tenens general practice wanted from June 1 through August 30. Could earn as much as $3,000 net per month or more. Also could lead to permanent association, if mutually agreeable. Florida license required. Send curriculum vitae first letter. Write C-733, P.O. Box 2411, Jacksonville, Fla. 32203.

Specialists

PEDIATRICIAN: Board eligible, to join two board pediatricians in rapidly growing Southeastern Florida coastal college town. Early partnership anticipated, excellent hospitals nearby. Send references and curriculum vitae in first letter. C-719, P.O. Box 2411, Jacksonville, Fla. 32203.

WANTED IMMEDIATELY: Pediatrician, internist, obstetrician and surgeon (capable of general practice) to join surgeon in a group. Best references required. Guaranteed minimum $18,000 plus percentage of profits or salary of $25,000. Write C-728, P.O. Box 2411, Jacksonville, Fla. 32203.

OBSTETRICIAN-GYNECOLOGIST WANTED: To associate with two man group. Large established practice in Miami; Board eligible or certified; prefer under age 35. Write P.O. Box 384, Miami Shores, Fla. 33153.

OPENING IN INTERNAL MEDICINE in 15 man group with four in internal medicine. Guarantee first year, partnership in 2 to 3 years. Write to John E. Bechtold, M.D., Palm Beach Medical Group, P.O. Box 2068, West Palm Beach, Fla. 33402.

WANTED: Board eligible general surgeon under age 40 for association with two general surgeons in greater Miami area. Florida license required. Write C-699, P.O. Box 2411, Jacksonville, Fla. 32203.

PATHOLOGIST: To head, organize department, clinical laboratories. Three hospital system, 175 beds, 23 physicians. 80,000 population, Florida Gulf coast. Florida license required. Arrangements open. Contact: Director, Fort Walton Beach Hospital, Fort Walton Beach, Fla. 32548.

PEDIATRICIAN: To join two pediatricians (shared expenses- individual practices). Must be board qualified, have Florida license, and under age 40. Choice city lower West coast. Write C-729, P.O. Box 2411, Jacksonville, Fla. 32203.

INTERNIST: Florida group of board certified specialists desires internist with gastroenterology training capable of doing fluoroscopy and x-ray interpretation. Academic, financial, personal satisfaction. Excellent modern hospitals. Beautiful area. Write C-730, P.O. Box 2411, Jacksonville, Fla. 32203.

WANTED: Internist, board qualified or board certified in internal medicine, Florida licensed. To be associated with a group of three internists. Salary and percentage basis the first year, with minimum guarantee of $18,000. Located on Southeast coast of Florida. Future partnership assured. Write C-731, P.O. Box 2411, Jacksonville, Fla. 32203.

WANTED: Associate, General Surgeon or Surgeon subspecialist to join three internists and dermatologists in practice located on southeast coast of Florida. No financial outlay required. Write C-734, P.O. Box 2411, Jacksonville, Fla. 32203.

OBSTETRICIAN-GYNECOLOGIST, board eligible or certified, to join two diplomates in private practice, Miami, Florida. Medical school appointment available. Salary first year, early partnership. Send resume. Write C-725, P.O. Box 2411, Jacksonville, Fla. 32203.

PHYSICIAN—Pediatrician or general practitioner with pediatric background. 450 bed state hospital for nonambulatory, mentally retarded; 40 hour week; home on grounds available at nominal rental; state university junior college and excellent public school system; salary $12,600 with all fringe benefits. John D. Browning, M.D., Medical Director, Sunland Hospital, Tallahassee, Florida 32304.

Miscellaneous

STUDENT HEALTH PHYSICIANS: Openings July 1967, for active, young general practitioners, internists or pediatricians interested in adolescents. Comprehensive student health service directed toward modern community health program. Affiliated with major University Medical Center in Southeast. Opportunity for teaching, research and faculty status if qualified. Compensation to $17,000 with benefits. One immediate appointment available at $14,625. Enclose full resume with first correspondence. Write C-722, P.O. Box 2411, Jacksonville, Fla. 32203.

OPPORTUNITY FOR DOCTORS who want to join a multi-specialty group—who want to practice in Florida. A senior surgeon with a large practice and with adequate facilities including laboratory, x-ray and physical therapy departments, desires to confer with board eligible or board certified doctors. The intent is to form a new multi-specialty group practice. Close proximity to a new 500 bed hospital. All inquiries held in strict confidence. Reply to: Jay S. Lombardy & Associates, Management to the Medical Profession, 1177 N.E. 8th St., Delray Beach, Florida 33444.

PHYSICIANS WANTED: Full time industrial physicians for permanent employment in DuPont Company plants. Excellent opportunity. General practitioner preferred. Salary open. Immediate opening at May Plant in Camden, S.C. Please write to: G. W. Hammon, Personnel Section, E. I. DuPont De Nemours & Co. An equal opportunity employer.

GENERAL PRACTITIONER OR INTERNIST: Medical offices available. One to four doctors accommodated. Modern structure; utilities and janitor service included. Many medical facilities are found among other tenants. Located in the heart of Winter Park, Fla. Telephone: 644-8217. Write: c/o 240 New England Building, Winter Park 32789.

Position open for licensed physician in the outpatient department of hospital in the Florida West coast area. For details, please write C-735, P.O. Box 2411, Jacksonville, Fla. 32203.

real estate

FOR RENT: Two offices in professional building with other doctors and dentists. Fine location with ample parking. One office 1,000 sq. ft. and the other 1,100. Write Clara M. Hensley, 1724 Drew St., Clearwater, Fla.

RENTAL-PROFESSIONAL SUITES: Will divide 2,250 sq ft. to tenant's specifications. Modern professional building. Ideal location. Ample parking. 1300 North Federal Highway, Lake Worth, Fla. 33460. 305-582-1760.

FOR SALE: Available now. Hospital, lab, x-ray, oxygen, bed pans for 40 bed hospital. Write Inventory, The Cedars of Gulfport, 2937 Beach Blvd., Gulfport, Fla. 33707. Phone 347-9530.

practices for sale

AVAILABLE: General practitioner's office practice, equipment, records. Ready for immediate occupancy. Phone: Delray Beach, Fla. 276-4881, or Boynton Beach, Fla. 732-9234; or write W. L. Hurt, M.D., 25 N.E. 4th Avenue, Delray Beach 33444.

situations wanted

RADIOLOGIST: Age 37, married, board certified, well trained in special procedure radiography desires association or hospital position. Available after January 1967. Write 15305 S. W. 72nd Ct., Miami, Fla. 33143.

General Practice physician with 14 years experience including general surgery and industrial medicine desires association with individual or group. Write C-732, P.O. Box 2411, Jacksonville, Fla. 32203.

OBSTETRICIAN-GYNECOLOGIST, board eligible, Florida licensed seeks association or partnership with established specialist or group in southeast Florida. Write C-737, P.O. Box 2411, Jacksonville, Fla. 32203.

ANESTHESIOLOGIST available for locum tenens June through August. Midwest graduate, university trained diplomate, 10 years experience, top drawer. No problems. Write C-736, P.O. Box 2411, Jacksonville, Fla. 32203.

The Florida Medical Association offers placement assistance through the Physician Placement Service, P. O. Box 2411, Jacksonville 32203. This service is for the use of physicians seeking locations, as well as physicians seeking associates, and is without charge.

THE DUVALL HOME for RETARDED CHILDREN

A home offering the finest custodial care with a happy home-like environment. We specialize in the care of infants, bed-ridden children and Mongoloids.

For further information write to

MRS. A. H. DUVALL GLENWOOD, FLORIDA

Florida Medical Association

735 Riverside Ave., P. O. Box 2411

Jacksonville, Florida 32203

Officers

George S. Palmer, M.D., President ..... Tallahassee
W. Dean Steward, M.D., President-Elect ..... Orlando
William J. Dean, M.D., Vice President ..... St. Petersburg
Franklin J. Evans, M.D., Speaker of the House ..... Coral Gables
James T. Cook, M.D., Vice Speaker ..... Marianna
Floyd K. Hurt, M.D., Secretary-Treasurer ..... Jacksonville
H. Phillip Hampton, M.D., Immediate Past President ..... Tampa
W. Harold Parham, Executive Director ..... Jacksonville

Councils

Jesse W. Castleberry, M.D., Chairman, Council on Allied Professions and Vocations ..... Orlando
John J. Cheleden, M.D., Chairman, Judicial Council ..... Daytona Beach
Joseph C. VonThron, M.D., Chairman, Council on Legislation and Public Agencies ..... Cocoa Beach
Jack A. MaCris, M.D., Chairman, Council on Medical Economics ..... St. Petersburg
David W. Martin, M.D., Chairman, Council on Medical Education and Hospitals ..... West Palm Beach
William R. Daniel, M.D., Chairman, Council on Medical Services ..... Orlando
Richard C. Dever, M.D., Chairman, Scientific Council ..... Miami
Warren W. Quillian, M.D., Chairman, Council on Special Activities ..... Coral Gables
Edward W. Cullipher, M.D., Chairman, Council on Specialty Medicine ..... Miami
Mason Romaine III, M.D., Chairman, Council on Voluntary Health Agencies ..... Jacksonville

Information for Authors

Manuscripts submitted for publication in the Journal of the Florida Medical Association should be double or triple spaced on white bond, including title page, illustration legends, charts and graphs, table headings, footnotes and bibliography.

Submit original manuscript and two copies. Copying by electrostatic dry process (not wet process) is preferred to tissue copies. Retain one additional copy in your office for proofreading. All material is submitted with the understanding it is subject to editing.

Photographs should be submitted as 5x7 glossy prints, untrimmed and unmounted; number each photograph *lightly* on the back with pencil and indicate top. Charts, graphs and medical illustrations should be submitted as india ink drawings on white gloss paper; remember to make details large enough to allow for photographic reduction. It is a policy of the Journal that authors pay for any cuts made to illustrate their papers.

Titles should be short, specific and clear. Omit phrases such as "The Use of," "Observations on." If paper was presented at a meeting, indicate name of organization, city, month, day and year.

Only original papers not previously published are accepted for publication. Manuscripts submitted for publication are subject to review and approval by the Journal Publications Committee. Except by invitation, only papers from members of the Florida Medical Association are considered for publication.

References should be typewritten, double or triple spaced, beginning on a new sheet of paper entitled "References." Number references in the text in order of citation and prepare bibliography in the same order. Bibliographies should conform to the style of the Index Medicus. The Journal prints only bibliographies of eight references or less; bibliographies of more than eight references are referred to at the end of the paper with the statement "References are available from the author upon request."

All manuscript pages should be numbered consecutively. Within the manuscript, numbers one to nine should be spelled out except when used for units of measurement; for numbers above nine, numerals should be used. Dorland's Medical Dictionary and Webster's International Dictionary may be used as standard references. Scientific names for drugs should be used when possible. Copyright or trade names of drugs should be capitalized.

When thiazide or reserpine alone won't keep



Establish and maintain early, more decisive control of blood pressure

'hen blood pressure won't stay down despite initial therapy—hen complaints of headache, fatigue or dizziness are often oiced—it may be time for a change to DIUTENSEN-R.

IUTENSEN-R is thiazide and reserpine plus cryptenamine—a ational, comprehensive therapy to help establish and maintain arly, more decisive control of blood pressure.

he cryptenamine in DIUTENSEN-R helps improve normal vaso-ilating reflexes while the thiazide and reserpine components naintain vasorelaxant, sedative, and saluretic benefits. Cryp-enamine lowers pressoreceptor reflex thresholds (which may e abnormally high in hypertension)—"resets" pressoreceptors o function at more nearly normotensive levels.

arly, more decisive control with DIUTENSEN-R *helps secure con-nuing benefits—may reduce or even obviate the need for poorly olerated drugs later in therapy.*

Indications: DIUTENSEN-R may be employed in all grades of essential hypertension.
Dosages: Usual dose is 1 tablet twice daily, at morning and evening meals. However, adjustment of dosage to suit individual circumstances may be required. Please refer to package insert for full particulars.
Side effects and precautions: The side effects observed with patients on DIUTENSEN-R have been of a mild and nonlimiting nature. These include occasional urinary frequency, nocturia, nasal congestion, muscle cramps, skin rash, joint pains due to gout and nausea and dizziness which have been reported for the individual components. Most of these symptoms disappear while the drug is continued at the same or lower dosage level. The concomitant use of digitalis and DIUTENSEN-R may increase the possibility of digitalis-like intoxication. If there is evidence of myocardial irritability (extrasystoles, bigeminy or AV block), dosage of DIUTENSEN-R should be reduced or discontinued. Nocturia in patients with marginal cardiac status and salt and fluid retention can be effectively controlled by limiting the time of administration to early afternoon. DIUTENSEN-R should not be used in patients with a known intolerance to reserpine. Package inserts furnish a complete summary of recommended cautions related to each of the ingredients of DIUTENSEN-R.
*As tannate salts equivalent to 130 Carotid Sinus Reflex Units.

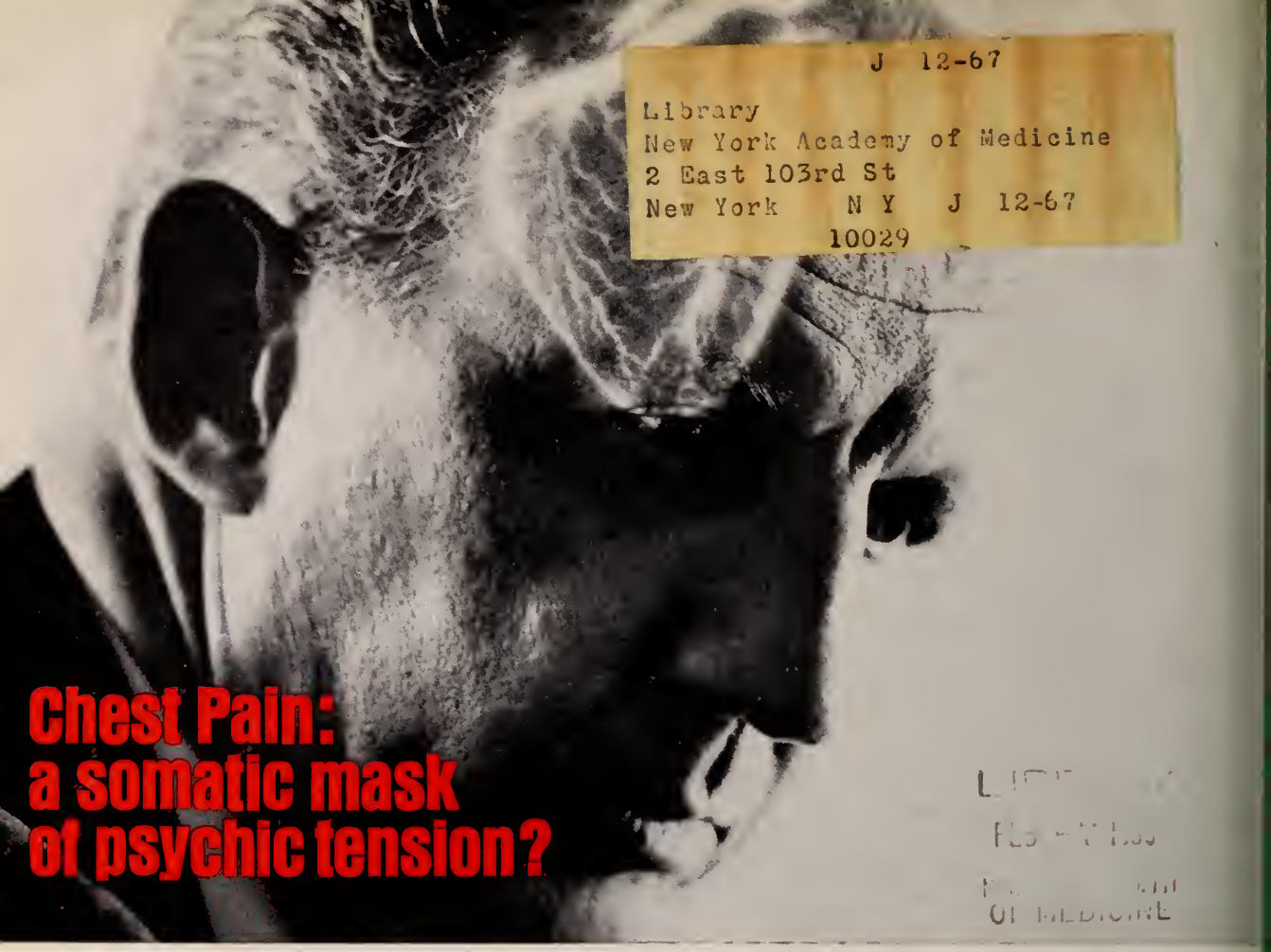
NEISLER UNION CARBIDE

NEISLER LABORATORIES, INC. • DECATUR, ILLINOIS
SUBSIDIARY OF UNION CARBIDE CORPORATION

DIUTENSEN®-R

Cryptenamine 1.0 mg* Methyclothiazide 2.5 mg Reserpine 0.1 mg

J 12-67
Library
New York Academy of Medicine
2 East 103rd St
New York N Y J 12-67
10029



Chest Pain: a somatic mask of psychic tension?

"Heart symptoms"—chest pain, tachycardia, arrhythmia—invariably alarm and preoccupy the patient, though they may be completely without organic basis. Such symptoms often are somatic masks of psychic tension, arising from constant encounters with stressful situations.

When the problem is diagnosed as emotionally produced, consider Valium (diazepam) as adjunctive therapy. Valium (diazepam) acts rapidly to calm the patient, to reduce his psychic tension and relieve associated cardiovascular complaints.

NEUROTIC FATIGUE—the chronic tiredness resulting from emotional strain which so often accompanies psychogenic "heart" symptoms—also can be alleviated by this highly useful agent. Valium (diazepam) often achieves results where other psychotherapeutic agents have failed.

Valium (diazepam) is generally well tolerated, and usually does not impair mental acuity or ability to function. If side effects such as ataxia and drowsiness occur, they usually disappear with dosage adjustment.

Contraindications: Infants, patients with history of convulsive disorders or glaucoma.

Warning: Not of value in the treatment of psychotic patients, and should not be employed in lieu of appropriate treatment.

Precautions: Limit dosage to smallest effective amount in elderly patients (not more than 1 mg, one or two times daily) to preclude ataxia or oversedation. Advise patients against possibly hazardous procedures until correct maintenance dosage is established; driving during therapy not recommended. In general, concurrent use with other psychotropic agents is not recommended. Warn patients of possible combined effects with alcohol. Safe use in pregnancy not established. Observe usual precautions in impaired renal or hepatic function and in patients who may be suicidal; periodic blood counts and liver function tests advisable in long-term use. Cease therapy gradually.

Side Effects: Side effects (usually dose-related) are fatigue, drowsiness and ataxia. Also reported: mild nausea, dizziness, blurred vision, diplopia, headache, incontinence, slurred speech, tremor and skin rash; paradoxical reactions (excitement, depression, stimulation, sleep disturbances and hallucinations) and changes in EEG patterns. Abrupt cessation after prolonged overdosage may produce withdrawal symptoms similar to those seen with barbiturates, meprobamate and chlordiazepoxide HCl.

Dosage — Adults: Mild to moderate psychoneurotic reactions, 2 to 5 mg b.i.d. or t.i.d.; severe psychoneurotic reactions, 5 to 10 mg t.i.d. or q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hrs, then 5 mg t.i.d. or q.i.d. as needed; muscle spasm with cerebral palsy or athetosis, 2 to 10 mg t.i.d. or q.i.d. Geriatric patients: 1 or 2 mg/day initially, increase gradually as needed.

Supplied: Tablets, 2 mg, 5 mg and 10 mg; bottles of 50 for convenience and economy in prescribing.

Roche Laboratories Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110

for somatic symptoms of psychic tension

2-mg, 5-mg, 10-mg tablets

Valium®
(diazepam)

ROCHE

MARCH, 1967
Volume 54
Number 3

The JOURNAL of the Florida Medical Association

In This Issue

Wound Closure
Auto Crash Injury
Perinatal Mortality
Smoking and Accidents
Physician's Bible Study
Experience With IUCD's
Nervous System Lesions
Two-Pounds-A-Week Deal
Diuretic Effects of Triamterene

OFFICIAL PUBLICATION OF THE FLORIDA MEDICAL ASSOCIATION

PLAN TO ATTEND
93rd Annual Meeting
May 11-14, 1967
Americana Hotel
Bal Harbour


when it counts...
Chloromycetin®
(chloramphenicol)
PARKE-DAVIS
PARKE, DAVIS & COMPANY, Detroit, Michigan 48232
Complete information for usage
available to physicians upon request.
01366

Lutrexin®

HW&D BRAND OF LUTUTRIN

3000 UNIT TABLETS

IN THE TREATMENT OF FUNCTIONAL DYSMENORRHEA ND SELECTED CASES OF PREMATURE LABOR AND 2ND AND 3RD TRIMESTER THREATENED ABORTION

In controlling abnormal uterine activity, LUTREXIN, the non-steroid "uterine relaxing factor" has been found to be the drug of choice by many clinicians.

No side effects have been reported, even when massive doses (25 tablets per day) were administered.

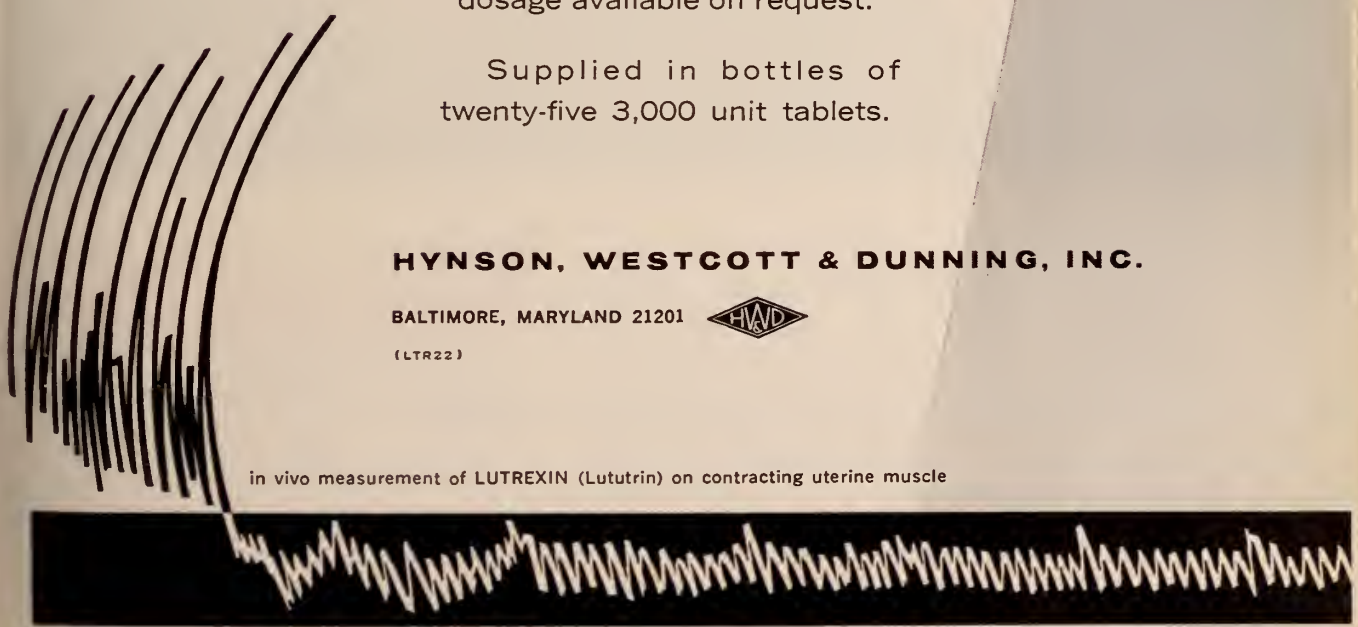
Literature on indications and dosage available on request.

Supplied in bottles of twenty-five 3,000 unit tablets.

HYNSON, WESTCOTT & DUNNING, INC.

BALTIMORE, MARYLAND 21201

(LTR22)



in vivo measurement of LUTREXIN (Lututrin) on contracting uterine muscle

When the stagnant sinus must be drained...



Transillumination of the sinuses – diffuse shadow on right side of face indicates unilateral maxillary sinusitis.

In the common cold, Neo-Synephrine is unsurpassed for reducing nasal turgescence. It stops the stuffy feeling at once. It opens sinus ostia to re-establish drainage and lessen the chance of sinusitis. With Neo-Synephrine, in the concentrations most commonly used, decongestion lasts long enough for extended breathing comfort, without endangering delicate respiratory tissue. Systemic side effects are virtually unknown. There is little rebound tendency.

Neo-Synephrine® HCl

Brand of phenylephrine hydrochloride

is available in a variety of forms, for all ages:

- 1/8% solution for infants
- 1/4% solution for children and adults
- 1/4% pediatric nasal spray for children
- 1/2% solution for adults
- 1/2% nasal spray for adults
- 1/2% jelly for children and adults
- 1% solution for adults (resistant cases)

Also NTZ® Solution or Spray
Antihistamine-decongestant

Winthrop Laboratories, New York, N.Y. 10016 Winthrop

The JOURNAL
of the Florida Medical Association

Volume 54, Number 3, March 1967

THAD MOSELEY, M.D.
Editor

Assistant Editors

JOHN M. PACKARD, M.D.
OSCAR W. FREEMAN, M.D.

Assistant Editor from the Board of Governors
JACK Q. CLEVELAND, M.D.

W. HAROLD PARHAM
Managing Editor

EUGENE L. NIXON
Associate Managing Editor

LOUISE RADER
Assistant Managing Editor

EDITH B. HILL
Editorial Consultant

lished monthly at Jacksonville, rida. Price $7.00 a year: single num-s, 70 cents. Address Journal of rida Medical Association, P.O. Box 1, 735 Riverside Ave., Jacksonville, . 32203. Telephone (904) 356-1571. Ac-ted for mailing at special rate of tage provided for in Section 1103, of Congress of October 3, 1917; horized October 16, 1918. Entered second class matter under Act of gress of March 3, 1879, at the post ce at Jacksonville, Florida, October 1924.

THIS ISSUE

Scientific Articles

Experience With Intrauterine Contraceptive Devices, Quentin C. DeHaan, M.D. 217
Methods of Wound Closure, John W. Snow, M.D. 219
The Two-Pounds-A-Week Deal, Willard E. Manry Jr., M.D. 228
The Perinatal Mortality Problem in Florida, Gunnard J. Antell, M.D. 231
Endocrine Effects of Central Nervous System Lesions, Lawrence Kahana, M.D., Shirley Kahana, M.D. and Harry McPherson, M.D. 238
Diuretic Effects of Triamterene Combined With Hydrochlorothiazide, Giuseppe Belluccia, M.D. and Lawrence Kahana, M.D. 241

Special Articles

A Physician's Bible Study, J. Lawton Smith, M.D. 247
Automotive Crash Injury Research Study Continues in Florida, Francis T. Holland, M.D. 253
Smoking and Accidents, James E. Fulghum, M.D., Broward Williams and Robert Snowden 261

Editorials

The Seven Pillars of Sanity, I. Leo Fishbein, M.D. 246

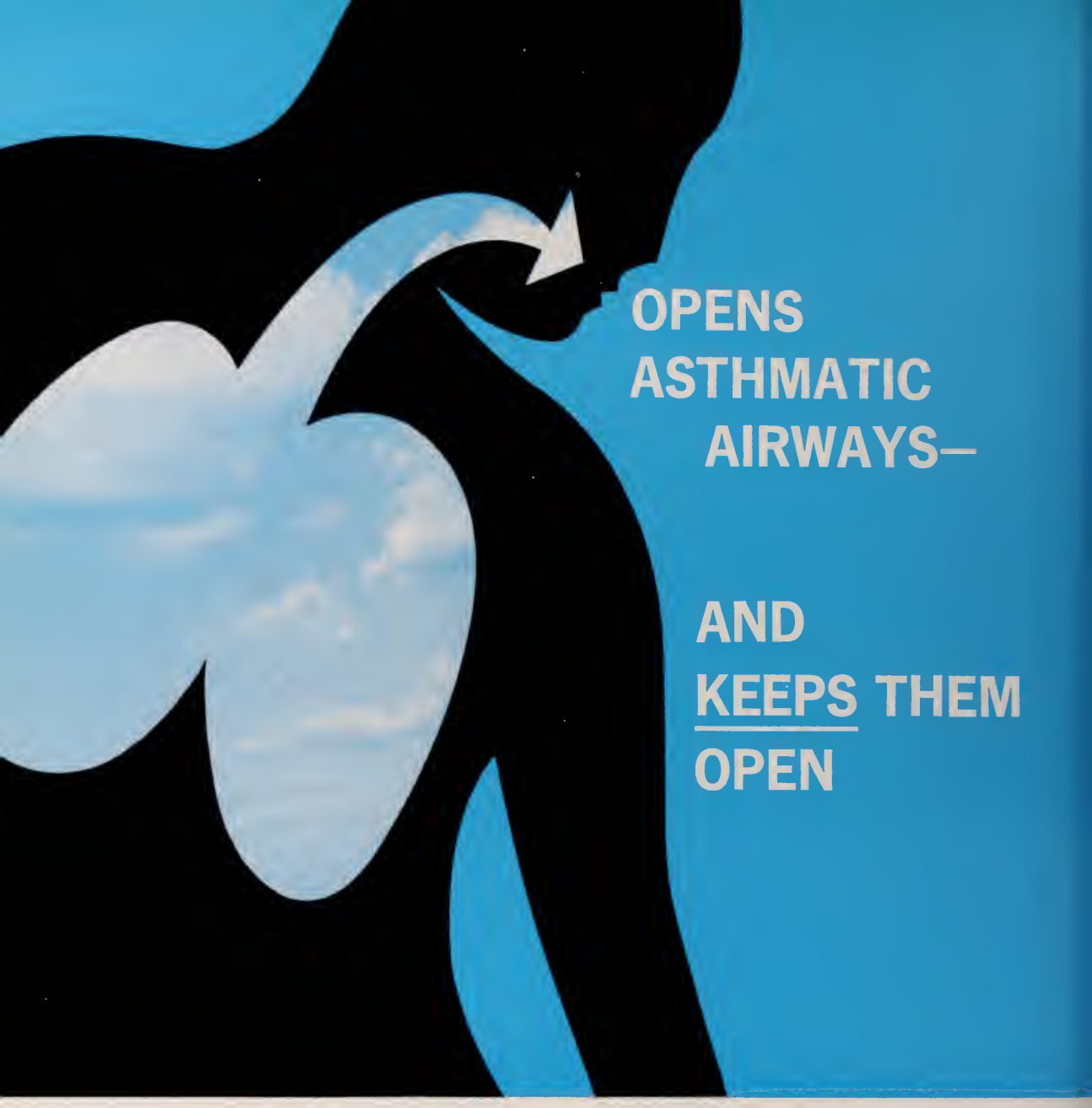
Departments

President's Page 245
The Medical Detective 256
Others Are Saying 268
Letters 273
Government News 277
Public Health Topics 280
Association News 284
News 290
National and Regional Meetings in Florida 291
Meetings 295
Classified 298

Miscellaneous

Index to Advertisers 297
Florida Medical Association Officers and Council Chairmen 302
Information for Authors 302

Owned and published by the Florida Medical Association, Inc. The Journal is not responsible for the opinions and statements of its contributors.



NUMA® DURA-TABS®

for *prolonged* aid to ventilation

Each Numa Dura-Tab provides:

theophylline	225 mg.
ephedrine HCl	50 mg.
butabarbital	25 mg.

(Warning: butabarbital may be habit-forming.)

Numa Dura-Tabs provide *prolonged* three-way action to ease breathing. Theophylline, a potent bronchodilator with minimal effect on the CNS, opens air passages and reduces bronchial spasm. Ephedrine HCl improves breathing capacity through its decongestant action. Butabarbital, a mild sedative, allays fear and apprehension.

Dosage: One Numa Dura-Tab every 8 to 12 hours helps keep the asthmatic patient symptom-free all day/all night.

Precautions: Use with caution in cardiovascular or hyperthyroid disease, severe hypertension, circulatory collapse, prostatic hypertrophy, or glaucoma.

WYNN Pharmaceuticals, Inc. Phila., Pa. 19132 • Manufacturers of QUINAGLUTE® DURA-TABS®

DIARRHEA



CANTIL®
(mepenzolate bromide)

LAKESIDE

Diarrhea, one of the most vexing symptoms of common G. I. disorders can often be curbed with Cantil (mepenzolate bromide), bringing welcome relief to the harassed patient. Relatively specific for the hyperactive colon, it helps reduce diarrhea, pain and spasm with minimal effect on other viscera. Cantil (mepenzolate bromide) is indicated whenever these symptoms are associated with irritable colon, gastroenteritis, diverticulitis, and mild to moderate ulcerative colitis.

It is an anticholinergic drug without narcotic properties. Side effects are usually mild.

IN BRIEF: One or two tablets three times a day and one or two at bedtime usually provide prompt relief. Cantil with Phenobarbital may be prescribed if sedation is required.

Dryness of the mouth, blurring of vision, constipation, nausea, vomiting, bloating and dizziness may occur but are usually mild and transitory. Urinary retention is rare. Caution should be observed in prostatic hypertrophy — withhold in glaucoma. Contraindicated in patients sensitive to phenobarbital and/or Cantil (mepenzolate bromide); in toxic megacolon, obstruction of G. I. or G. U. tract.

SUPPLIED: CANTIL (mepenzolate bromide) — 25 mg. per scored tablet. Bottles of 100 and 250. CANTIL with PHENOBARBITAL — containing in each scored tablet 16 mg. phenobarbital (warning: may be habit forming) and 25 mg. mepenzolate bromide. Bottles of 100 and 250.

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201



now Novestrol™ (ethinyl estradiol U.S.P.)

estrogen replacement therapy

for the menopausal syndrome and female hypogonadism. Novestrol, a pure synthetic estrogen derivative, is related to estradiol which is the primary hormone of the ovarian follicle. It is effective orally and has all the actions of naturally occurring estrogen.

Ethinyl estradiol is the most active estrogen known. In addition to its high potency, Novestrol offers patients the advantages of minimal side effects, low cost, and convenience. Usually only a single daily dose is necessary.

Description: Each green, sugar-coated tablet contains 0.02 mg. of ethinyl estradiol U.S.P., a pure synthetic estrogen derivative, the most active estrogen known.
Indications: Menopausal syndrome and female hypogonadism.
Contraindications: Patients with tumors which estrogen might stimulate.
Precautions: Examine patients for mammary or reproductive system neoplasm. Give with great care, if at all, to patients who have precancerous lesions or family history of cancer.

Prolonged administration or high doses may produce anterior pituitary suppression. Endometrial bleeding can usually be avoided by cyclic administration at lowest effective dose and addition of progesterone during last half of cycle. Endometrial hyperplasia may develop in spite of cyclic therapy.
Side Effects: Occasional gastrointestinal disturbances, headache and vertigo. These usually disappear following proper dosage reduction.
Dosage and Administration: Determine minimum effective dose and maintain only as long as necessary.

Menopausal Syndrome: One or two tablets (0.02 or 0.04 mg.) daily. Omit therapy one week each month. Repeat cyclic therapy until satisfactory response is obtained. Advise patient that vaginal bleeding may occur.

Female Hypogonadism: Two tablets (0.04 mg.) one to three times daily for two weeks followed by progesterone for two weeks. Continue cyclic therapy for 3-6 months; then withdraw therapy to determine if normal cycle will be instituted. Additional cyclic therapy may be required in some patients.



WILLIAM H. RORER, INC. Fort Washington, Pa.



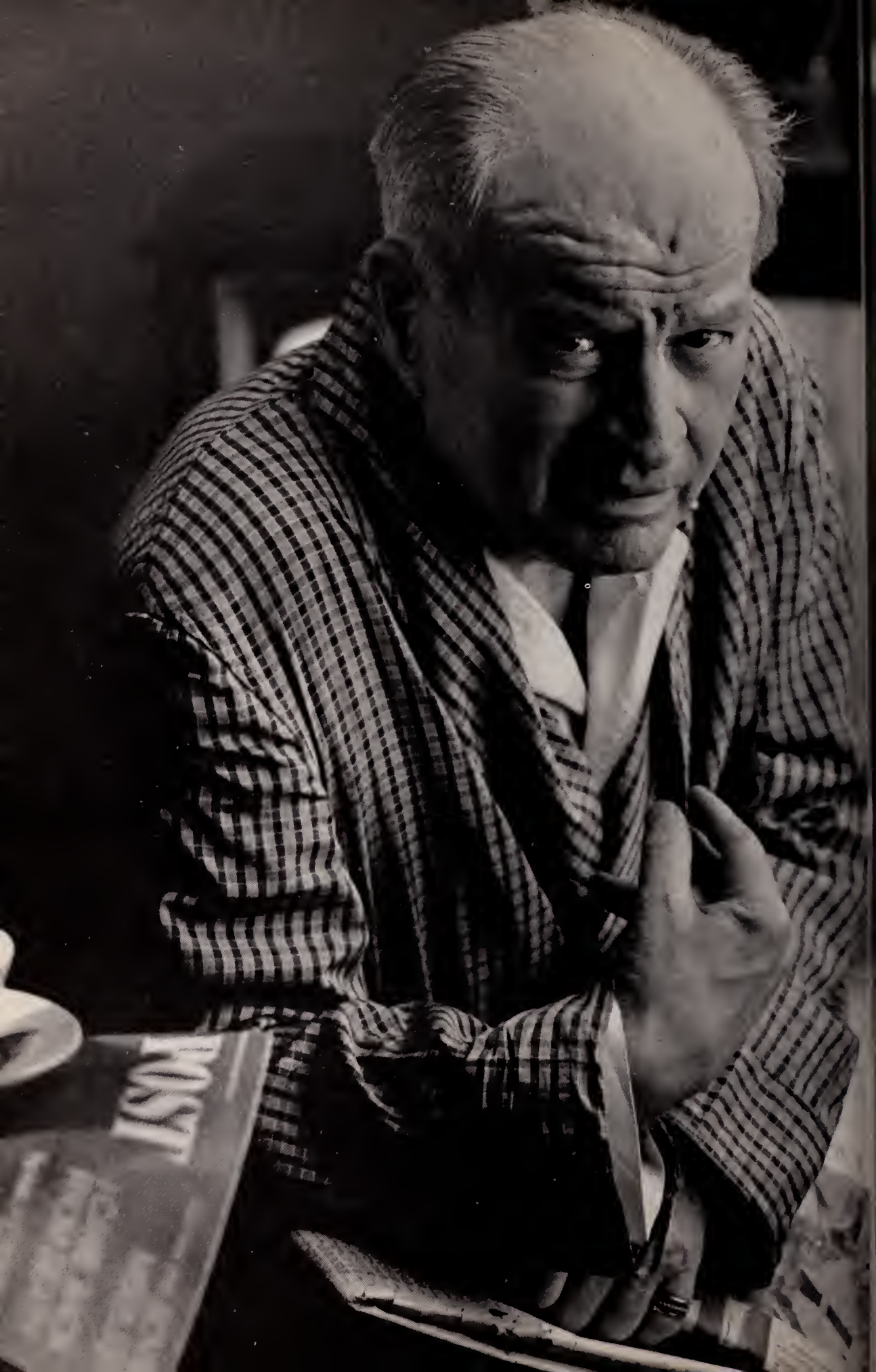
"George wants to know if it's okay to take his cold medicine now, Doctor, instead of seven o'clock?"



The long-continued action of Novahistine LP should help you both get a good night's sleep. Two tablets in the morning and two in the evening will usually provide round-the-clock relief by helping clear congested air passages for freer breathing. Novahistine LP also helps restore normal mucus secretion and ciliary activity—normal physiologic defenses against infection of the respiratory tract. Use cautiously in individuals with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Caution ambulatory patients that drowsiness may result. Each Novahistine LP tablet contains: phenylephrine hydrochloride, 25 mg., and chlorpheniramine maleate, 4 mg.

NOVAHISTINE® LP

DOW **PITMAN-MOORE** Division of The Dow Chemical Company, Indianapolis





Posed by professional model

I'm supposed to get up and do things?

With my heart?

It's entirely natural—and may even be desirable—for the cardiovascular patient to be somewhat anxious about himself.

But when anxiety leads to unreasonable self-imposed limitations and restrictions . . . when it aggravates cardiovascular symptoms . . . when it interferes with restful sleep, measures to help alleviate the anxiety are probably in order.

One measure, of course, is reassurance. Another, adjunctive measure, is EQUANIL (meprobamate).

Over a decade of experience has shown that EQUANIL (meprobamate) is generally well tolerated as well as effective. Side effects are usually limited to transient drowsiness; serious, therapy-interrupting side effects are rare.

Cautions: Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use may result in dependence or habituation in susceptible persons—as ex-addicts, alcoholics, severe psychoneurotics. After prolonged high dosage, drug should be withdrawn gradually to avoid possibly severe withdrawal reactions including epileptiform seizures. Side effects include drowsiness and, rarely, allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute non-thrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever have been reported. Meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. Warn patients of possible reduced alcohol tolerance. Should drowsiness, ataxia, or visual disturbances occur, dose should be reduced. If symptoms persist, patients should not operate vehicles or dangerous machinery. A few cases of leukopenia, usually transient, have been reported following prolonged dosage. Other blood dyscrasias—aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis and hemolytic anemia—have occurred rarely, almost always in the presence of known toxic agents. One fatal case of bullous dermatitis following intermittent use of meprobamate with prednisolone has been reported. Prescribe very cautiously for patients with suicidal tendencies. Suicidal attempts should be treated with immediate gastric lavage and appropriate supportive therapy.

Contraindications: History of sensitivity to meprobamate.

Composition: Tablets, 200 mg. and 400 mg. meprobamate. Coated Tablets, WYSEALS® EQUANIL (meprobamate) 400 mg. Continuous-Release Capsules, EQUANIL L-A (meprobamate) 400 mg.

American Hospital Formulary Service Category No. 28:16.08

A quality controlled product of
Wyeth Laboratories Philadelphia, Pa.

to help relieve anxiety and tension occurring alone or secondary to organic disease

Equanil® (meprobamate)

Wyeth® SERVICE TO MEDICINE

Wounds, abscess, cellulitis



..and the omplications f staph.

taph reliably ontrolled with pecific therapy



uitable dosage form for every staph situation

From time of birth, the child is exposed to a whole range of potential staph infections: wounds; secondarily infected dermatoses; primary lesions, such as deep impetigo (ecthyma), boils and felons; and more serious conditions such as osteomyelitis, staph pneumonia and staph meningitis.

Bactericidal

Hardly a staph organism can resist the bactericidal action of Prostaphlin® (sodium oxacillin), as shown by a 34-month *in vitro* study. Of all staph isolates tested, 99.5% were sensitive to oxacillin.[1]

Clinically Proven

There is a high correlation between these *in vitro* findings and clinical results. Of 610 patients treated with Prostaphlin (sodium oxacillin), 89.8% were reported cured or improved, including those with staph infections resistant to penicillin G.[2] And since resistance does not appear to develop *in vivo,* therapy with oxacillin can be extended when necessary.

Outstanding Safety Record

Besides being staph-specific and rapidly absorbed—Prostaphlin (sodium oxacillin) has established an outstanding record of safety during five years of widespread clinical use. Continuous high blood levels of oxacillin have not produced toxic effects on kidney function, assuring a significant margin of safety. However, as with all penicillins, the possibility of allergic response should be considered.

Capsules, Oral Suspension and Injectable

Prostaphlin (sodium oxacillin) is available in three flexible dosage forms to suit the age of the patient and severity of infection—an oral solution for pediatric use, capsules, and multi-dose vials for injection.

PRESCRIBING INFORMATION: For complete information, consult Official Package Circular. *Indications:* Infections caused by Staphylococci, particularly those due to penicillin G-resistant Staphylococci. *Contraindications:* A history of severe allergic reactions to penicillin. *Precautions:* Typical penicillin-allergic reactions may occur. Safety for use in pregnancy and premature infants is not established. Because of limited experience, use cautiously and evaluate organ system function frequently in neonates. Mycotic or bacterial superinfections may occur. Assess renal, hematopoietic and hepatic function intermittently during long-term therapy. *Adverse Reactions:* Skin rashes, pruritus, urticaria, eosinophilia, nausea, vomiting, diarrhea, fever and occasional anaphylaxis. Rare cases of reversible hepatocellular dysfunction have occurred. Moderate SGOT elevations have been noted. Thrombophlebitis has occurred occasionally during intravenous therapy and leukopenia was noted in two cases. *Usual Oral Dosage:* Adults: 500 mg. *q.* 4 or *q.* 6 *h.* Children: 50 mg./Kg./day. *Usual Parenteral Dosage:* Adults: 250-500 mg. *q.* 4 or *q.* 6 *h.* Children: 50 mg./Kg./day. Treat beta-hemolytic streptococcal infections for at least 10 days. Give oral drug 1 to 2 hours before meals. *Supplied:* Capsules—250 and 500 mg. in bottles of 48. Injectable—250 mg., 500 mg., and 1 Gm. dry filled vial for I.M./I.V. use. For Oral Solution—100 ml. bottle, 250 mg./5 ml. when reconstituted. **A.H.F.S. CATEGORY 8:12.16**

References: 1. Abstracted from *Antibiotic Sensitivity of Staphylococci Studied from November 1962 through August 1965,* reported by Griffith, L.J., Staphylococcus Reference Laboratory, V.A. Hospital, Batavia, N.Y. 2. Data on file, Bristol Laboratories.

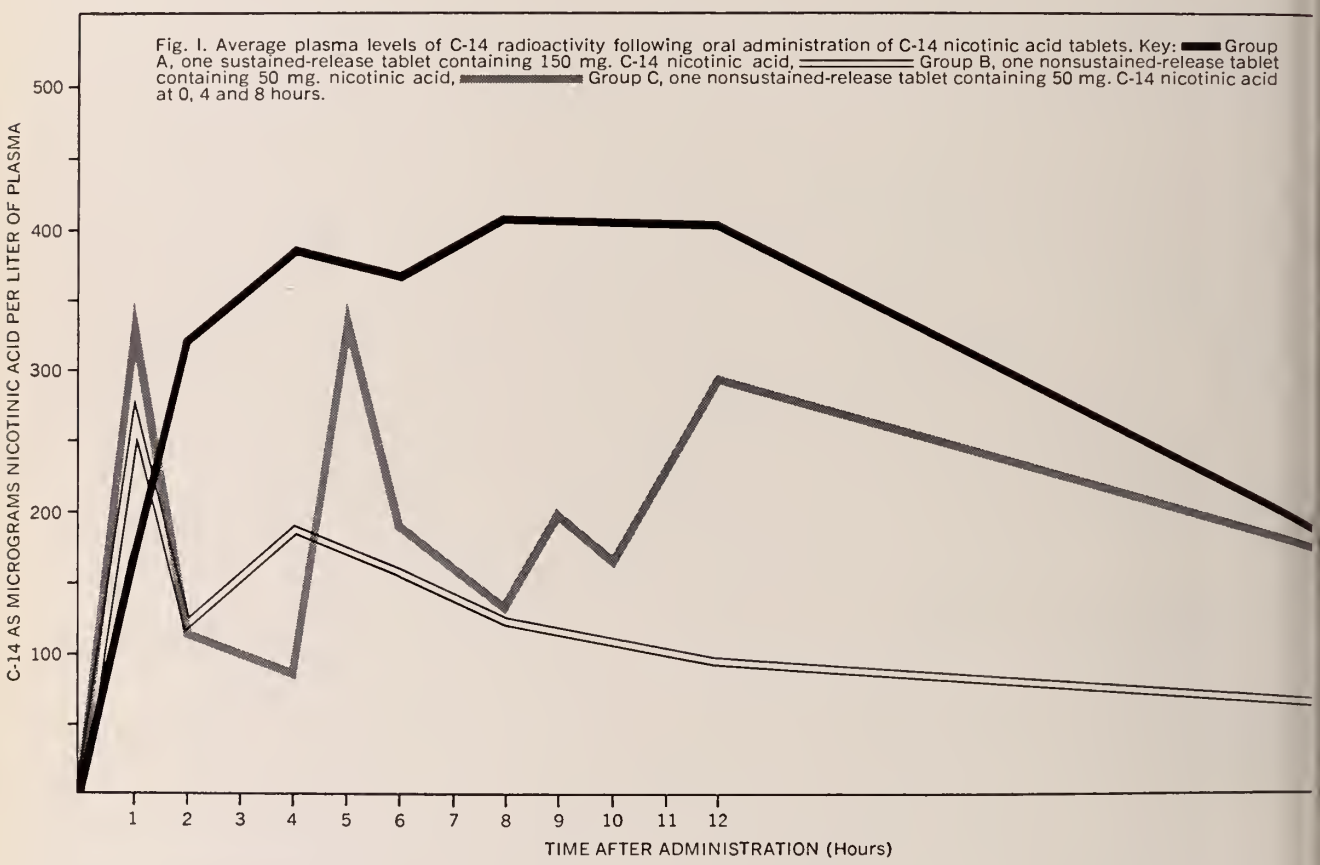
BRISTOL

BRISTOL LABORATORIES/Division of Bristol-Myers Co., Syracuse, N.Y.

Whenever you suspect staph PROSTAPHLIN®

SODIUM OXACILLIN

Sustained circulatory, respirato and cerebral stimulation for t





(fewer absent doses by absent-minded patients

Human volunteer subjects were administered Geroniazol TT tablets with the nicotinic acid component made radioactive with C-14. Plasma and urine samples were analyzed. (See Figures I and II) The radioactive tracer study substantiated the previous clinical evidence that the release of nicotinic acid from the Geroniazol TT tablet produced a gradual rise in plasma levels to a plateau for a total of 12 hours and more.

Such proven sustained activity makes the management of geriatric patients much easier by minimizing the possibility of neglected doses through absent-mindedness or senile confusion. Therapy *can* be tinuous on a daily dose of only one Geroniazol TT let every 12 hours.

The gradual release of nicotinic acid in Geroni TT will provide the well-known peripheral vasodil tion needed in patients with deficient circulation with a minimum amount (if any) of "flushing." cerebrovascular circulation is complemented by tylenetetrazol, long-established as a cerebral and piratory stimulant.

Geroniazol TT improves the typical, unfortu signs of senile confusion. Patients become more a

ged and debilitated

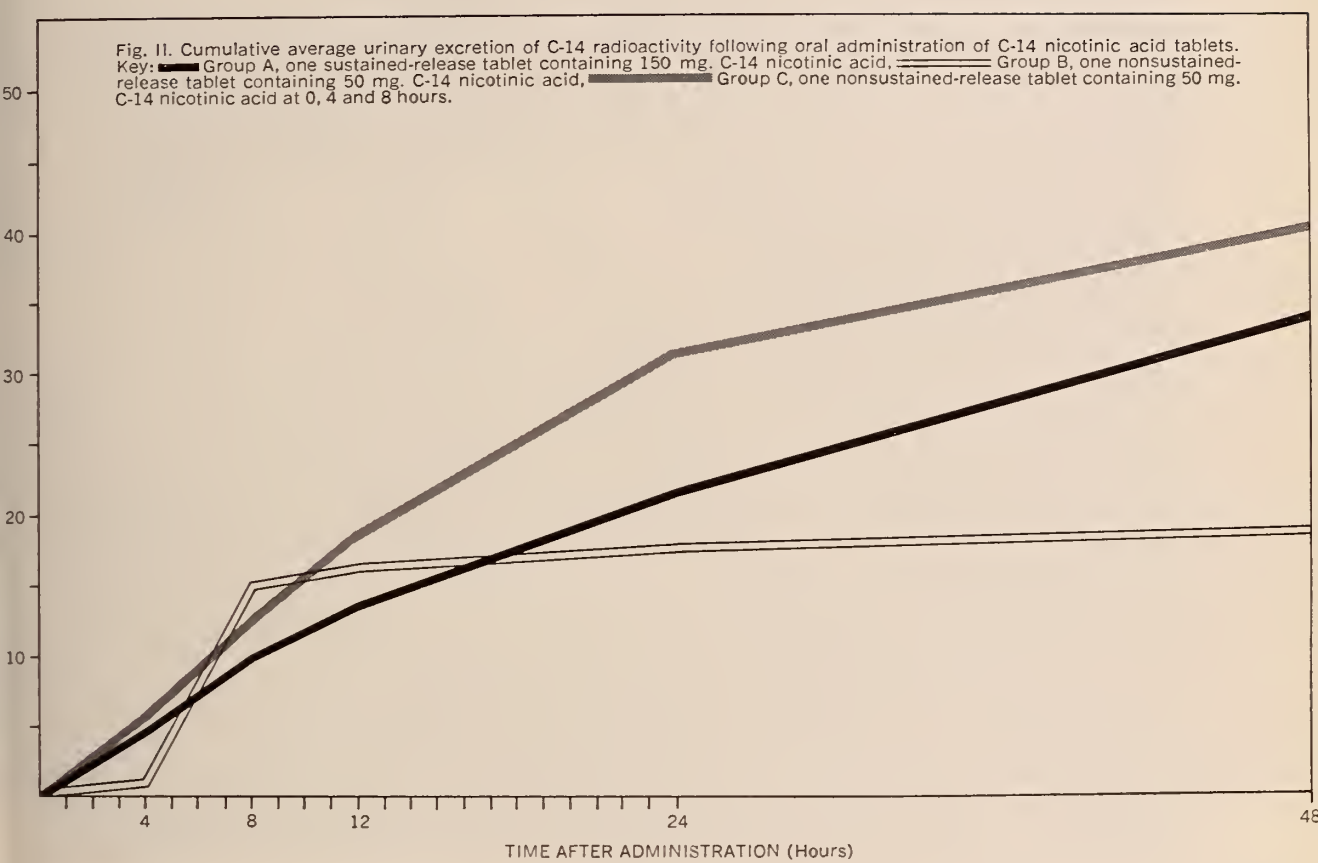


Fig. 11. Cumulative average urinary excretion of C-14 radioactivity following oral administration of C-14 nicotinic acid tablets. Key: ▬ Group A, one sustained-release tablet containing 150 mg. C-14 nicotinic acid, ═══ Group B, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid, ▬ Group C, one nonsustained-release tablet containing 50 mg. C-14 nicotinic acid at 0, 4 and 8 hours.

ss confused and moody. Personal care, memory, notional stability, social attention improve. Fatigue, athy and irritability are reduced.

A prescription for 100 tablets of Geroniazol TT will rmit your patients to enjoy the benefits of time-olonged nicotinic acid/pentylenetetrazol therapy, an economical price. Dosage is only one tablet every hours.

ntraindications: There are no known contraindica-ns.

ecautions: Exercise caution when treating patients th a low convulsive threshold.

Side Effects: Side effects are rarely encountered, however due to the vasodilatation effect of nicotinic acid, transitory mild nausea, flushing, tingling and pruritus are possible.

Dosage: One tablet every 12 hours.

Supplied: Prescribe bottles of 100 tablets, to take advantage of recent price reduction.

References: 1. Report by Nuclear Science & Engineering Corp., Pittsburgh, Pa., in files of Philips Roxane Laboratories. 2. Connolly, R.: W. Virginia Med. J. *56*:263 (Aug.) 1960. 3. Curran, T. R., and Phelps, D. K.: Am. Pract. & Digest Treat. *11*:617 (July) 1960.

"First with the Retro-Steroids"
PHILIPS ROXANE LABORATORIES
Division of Philips Roxane, Inc., Columbus, Ohio
A Subsidiary of Philips Electronics and Pharmaceutical Industries Corp.

Geroniazol® TT

nicotinic acid 150 mg., pentylenetetrazol 300 mg.
Tempotrol® Time Controlled Tablet

Night Leg Cramps...Frequent Bedfellow
In Diabetes,[1] Arthritis,[2] and Peripheral Vascular Disorders[2]



now...specific therapy for night leg cramps

QUINAMM™

Consistently effective, QUINAMM provided complete relief in 94% of 200 patients studied, many of whom were severe cases refractory to other medication.[3] Your prescription for one tablet at bedtime often controls painful night cramps with the initial dose . . . helps restore restful sleep.

QUINAMM Prescribing Information: Campasition: Each white, beveled, campressed toblet contoins: Quinine Sulfote 4 grains (250 mg.) ond Aminophylline 3 groins (200 mg.). **Precautions:** Aminophylline may produce intestinol cramps in some instonces, ond quinine may produce symptoms of cinchonism, such as tinnitus, dizziness, ond gostrointestinol disturbonce. Discontinue use if ringing in the eors, deafness, skin rosh, or visual disturbances occur. **Contraindication:** QUINAMM is contraindicoted in pregnoncy becouse of its quinine content. **Dosage:** One toblet upon retiring. Where necessary, dosoge may be increased to one tablet fallowing the evening meal and one tablet upon retiring. **Supplied:** Bottles of 100 ond 500 tablets. **Caution:** Federal law prohibits dispensing without prescription.

References: 1. Shuman, C.: Am. J. Med. Sci., 225:54, 1953. 2. Perchuk, E., et ol.: Angiolagy, 12:102, 1961. 3. Rowls, W., et al.: Med. Times, 87:818, 1959.

WALKER *Laboratories* Division of Richardson-Merrell Inc., Mount Vernon, New York 10551

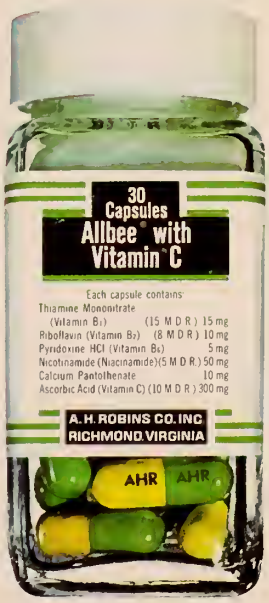
Two ways to give your patients a month's therapeutic supply of vitamin C:



118 grapefruit or 30 Allbee® with C

Your patient would have to eat 118 medium-sized grapefruit (almost 4 a day!) to get as much vitamin C as is provided in just one bottle of 30 Allbee with C capsules (taken one capsule daily). In addition, each capsule supplies full therapeutic amounts of the B-complex vitamins.

Your patients can purchase Allbee with C capsules in the convenient bottle of thirty—a month's supply at a very reasonable price. Also the economy size of 100. Available at pharmacies everywhere on your prescription or recommendation.



A·H·ROBINS

A. H. Robins Company, Richmond, Virginia



the spasm reactors in your practice deserve

"the Donnatal® Effect"

	each tablet, capsule or 5 cc of elixir (23% alcohol)	each Extentab®
hyoscyamine sulfate	0.1037 mg.	0.3111 mg.
atropine sulfate	0.0194 mg.	0.0582 mg.
hysocine hydrobromide	0.0065 mg.	0.0195 mg.
phenobarbital	(¼ gr.) 16.2 mg.	(¾ gr.) 48.6 mg.
(Warning: may be habit forming)		

A. H. ROBINS COMPANY, RICHMOND, VIRGINIA 23220

Brief summary. Blurring of vision, dry mouth, difficult urination, and flushing or dryness of the skin may occur on higher dosage levels, rarely on usual dosage. Administer with caution to patients with incipient glaucoma or urinary bladder neck obstruction. Contraindicated in acute glaucoma, advanced renal or hepatic disease or a hypersensitivity to any of the ingredients

A·H·ROBINS

In peptic ulcer... antacid therapy with a new benefit



CONTAINS A BALANCED COMBINATION OF THE MOST WIDELY USED ANTACIDS— FOR RAPID NEUTRALIZATION. PLUS SIMETHICONE— TO CONTROL THE FACTOR WHICH ANTACIDS ALONE CANNOT INFLUENCE.

Mylanta®

- In Mylanta, aluminum and magnesium hydroxides are balanced to minimize the chance of constipation or laxation and still achieve rapid acid neutralization and pain relief.
- The positive action of simethicone helps relieve the painful gas symptoms which often accompany the peptic ulcer syndrome.
- The nonfatiguing flavor and smooth, nongritty consistency of tablets and liquid encourage continued patient cooperation during long-term therapy.

Composition: Each Mylanta chewable tablet or teaspoonful (5 ml.) of liquid contains: magnesium hydroxide, 200 mg.; aluminum hydroxide, dried gel, 200 mg.; simethicone, 20 mg. **Dosage:** one or two tablets, well chewed or allowed to dissolve in the mouth, or one or two teaspoonfuls of liquid to be taken between meals and at bedtime.

The Stuart Company, Pasadena, California
Division of Atlas Chemical Industries, Inc.

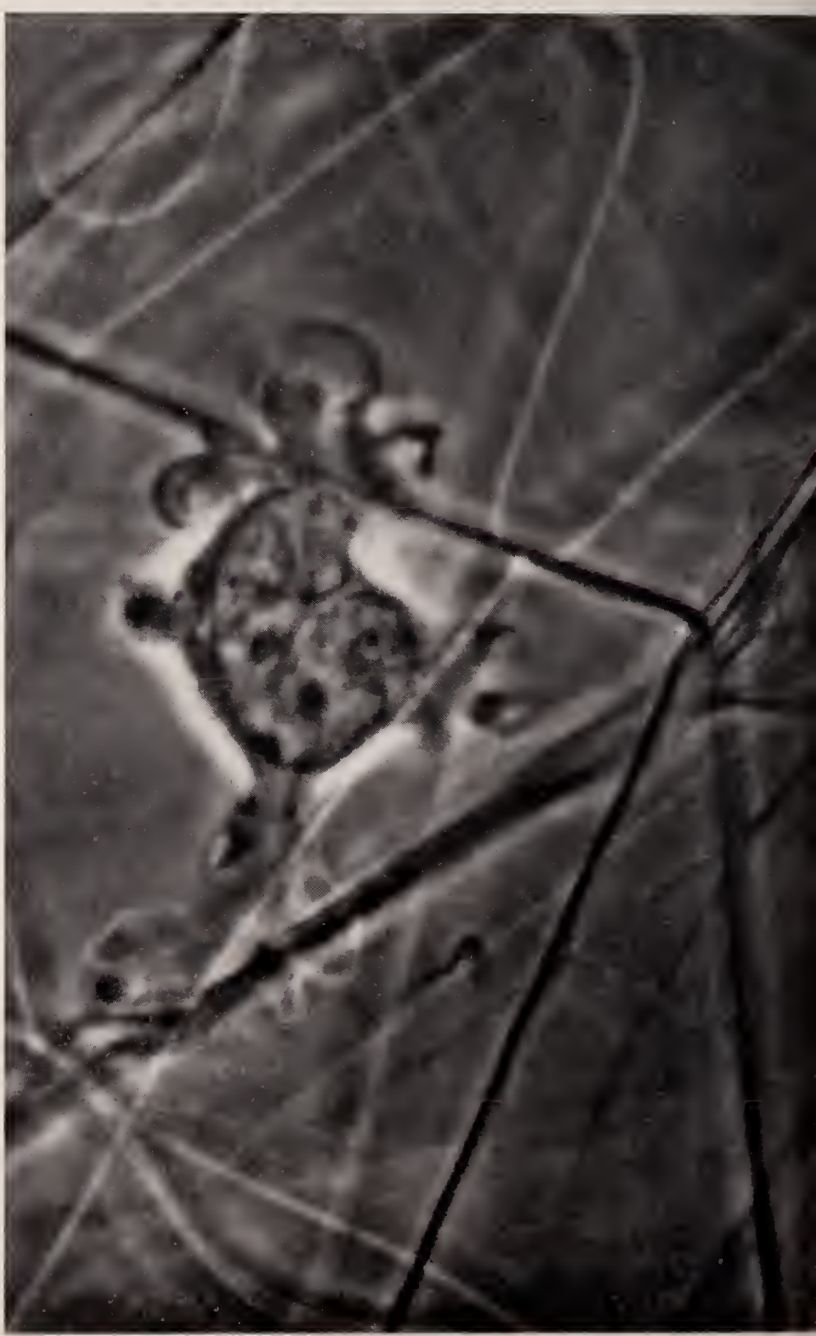
Stuart

INFLAMMATION:
A cellular fight for life

A SYNTEX REPORT based on recently developed hypotheses about topical corticosteroids, including the cellular theories of inflammation by Thomas F. Dougherty, Ph.D., University of Utah.

You are looking at a fibroblast fighting for life. This cell—one of the most common found in connective tissue—has literally been poisoned by cytotoxins released from other cells that have ruptured. Soon, if the abnormal activity of this fibroblast does not cease, it, too, will rupture and die—one more casualty in the inflammatory wave of destruction precipitated by injury.

Until a short time ago no one had ever witnessed such a scene at the cellular level. Now, through advanced cinemicrographic techniques, it is possible to view and photograph the inflammatory process as produced experimentally in living animal tissue. This method permits new insight into the mechanism of inflammation and the role of corticosteroids in therapeutic management. Equally important, these techniques shed new light on factors that may make one corticosteroid more effective than another—factors that can be correlated with other chemical, biologic, and clinical parameters.

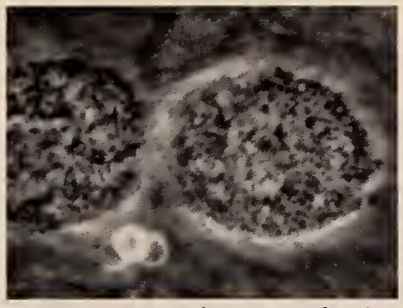


Visual evidence of how corticosteroids influence he inflammatory reaction

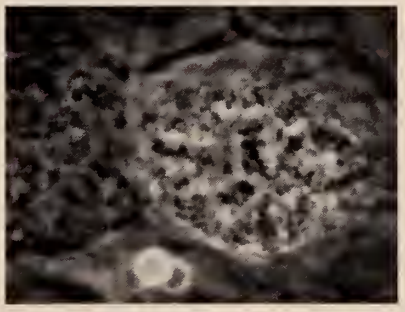
Working with phase-contrast cinemicrography on living animal tissue, Doctors Thomas F. Dougherty and David Berliner of the University of Utah College of Medicine have actually filmed cellular events that occur during the inflammatory reaction. This remarkable study* and additional work by these investigators, as well as by others, have established a new theoretical biologic basis for the antiinflammatory effect of the corticosteroids. (It must be noted that other theories, such as the lysosome or so-called "suicide bag" theory, have been postulated, although it is quite likely that there are more similarities than differences among the various theoretical models.)

The inflammatory wave of destruction

In this investigation an injurious injection of gelatin is used to set off an inflammatory reaction in living mouse tissue. What follows is a wave of destructive cellular activity that comprises the inflammatory response to injury. Mast cells (which contain heparin, serotonin and histamine) take up water, swell and rupture, releasing their contents, which are toxic outside the mast cell wall. These toxins, in turn, cause disintegration of other cells (such as fibroblasts) and the release of additional toxic material. Capillaries, too, take up water and leak unformed blood elements, causing edema. And polymorphonuclears, lymphocytes and epithelial cells invade the inflamed site. As a result of all these changes, the cellular environment reaches a state of turmoil.



Phase-contrast microscopy showing mast cell before injury.



Mast cell (after injury) has broken up and released cytotoxins.

How corticosteroids change the picture

Corticosteroids appear to virtually stop the abnormal cellular activity that constitutes the inflammatory reaction. This permits the body's natural resources to clear up the inflamed area and repair the damaged tissue. This interpretation is supported by the fact that when the injurious gelatin solution is injected simultaneously with a corticosteroid —Synalar (fluocinolone acetonide)— the inflammatory pattern simply does not develop.



Fibroblast in high state of activity, much distorted.



Mast cells showing effects of corticosteroid action: cells are normal in size, shape and activity.



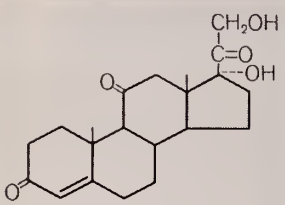
In summarizing his study Doctor Dougherty states: "...we also feel this work may explain why one corticosteroid helps a patient more rapidly and effectively than another. If it does, it is because one corticosteroid is the fastest, most effective inhibitor of the series of inflammatory events at the tissue level."

**A New View of Corticosteroid Action in Inflammatory Dermatoses,* a film based on this study, is now available from your Syntex representative.

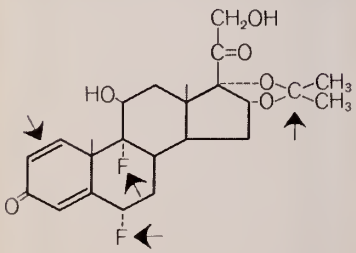
See last page for contraindications, precautions, side effects and dosage.

How advances in chemical design have achieved greater steroid potency

The chemical modification of corticosteroid molecules from the advent of hydrocortisone to the development of Synalar (fluocinolone acetonide) is a prime example of how biochemists can "design" to increase therapeutic activity and minimize undesirable side actions. Below, for example, we see the important changes that were made in reference to the hydrocortisone molecule to produce fluocinolone acetonide, one of the most active of all topical corticosteroids. As a result, a 0.01% preparation of Synalar (fluocinolone acetonide) has been reported to do the work of a 1% hydrocortisone product containing 100 times more cortiscosteroid. And it can often do it more effectively.



Hydrocortisone

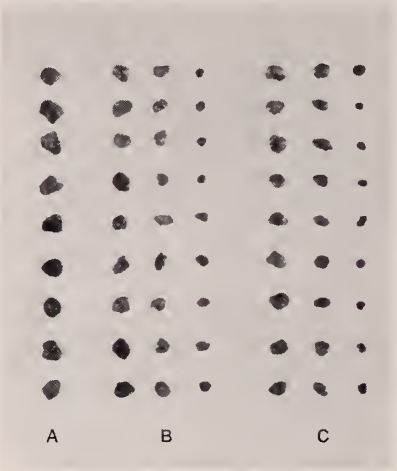


Fluocinolone Acetonide (Synalar)

- *a double bond between carbons 1 and 2*
- *fluorine substitutions at* both *the 6-α, and the 9-α positions*
- *the addition of the acetonide at the 16-α, 17-α positions, thus providing one of the most potent topical corticosteroids available.*

How bioassay tests are used to "predict" therapeutic potential

Biologic assays are another tool used by researchers to help establish the relative activity of corticosteroids. To date no single method of assaying corticosteroid activity has emerged as the ideal "yardstick" for predicting therapeutic potential. Taken together, however, these methods have proved useful. When such tests are run on various corticosteroids, a definite order of corticosteroid activity becomes evident. Compounds with the highest order of activity may be expected to merit clinical trial to establish their high therapeutic potential. When assayed by these methods, fluocinolone acetonide (Synalar) emerges as one of the most active topical corticosteroids, milligram for milligram, available for clinical application today.



THE THYMUS INVOLUTION ASSAY[1-4] is run on adrenalectomized rats. The sizes of the glands are measured, and the degree of involution caused by the steroid is determined as an indication of its potency. In the above photo, the comparative involution of thymus glands achieved with hydrocortisone and Synalar (fluocinolone acetonide) is shown. Untreated controls (A) show normal size. Group B – injected with 1, 2 and 4 mg. of hydrocortisone – show progressively smaller thymuses as does Group C – injected with fluocinolone acetonide – but with only 1/500th the dose of hydrocortisone.



THE ANTIGRANULOMA ASSAY[1-4] also utilizes adrenalectomized rats. Granulomas are induced by subcutaneous implantation of cotton pellets on either side of the thorax. The degree of granuloma inhibition achieved by a steroid reflects its potency. The above photo shows the inhibition of granuloma formation achieved with hydrocortisone and Synalar (fluocinolone acetonide). Untreated controls (A) show large, red granulomas adhering to the pellets. Group B, receiving hydrocortisone and Group C, receiving fluocinolone acetonide, show little, if any, granuloma formation. Fluocinolone acetonide produced the same effect as hydrocortisone with only 1/500th the dose. This assay, as well as the thymus involution assay, measures systemic rather than topical corticosteroid activity. Nevertheless, results by these methods correlate well with other assays and with the milligram potencies of topical steroids in current clinical use.

Worldwide clinical experience confirms the predictable therapeutic potential of Synalar

It is particularly gratifying that the promise of the advanced chemical design and high order of bioassay activity of Synalar (fluocinolone acetonide) has been confirmed by widespread therapeutic application. Indeed, the impressive clinical response rate of Synalar has been documented in no fewer than 232 papers from 22 countries.

Representative Clinical Results with Synalar*

Efficacy Documented in over 4,000 Patients

Condition	Number of Publications	Number of Patients	Significant Improvement†
Contact Dermatitis	27	750	713
Eczematous Dermatitis	21	472	409
Seborrheic Dermatitis	18	442	426
Atopic Dermatitis	24	460	426
Psoriasis	36	1,699	1,510
Neurodermatitis	18	351	324
Total	144	4,174	3,808

*Complete bibliography on request.

†Expressed by the authors as excellent, very good, good, complete remission of inflammation, etc.

PRESCRIBING INFORMATION

For initiation of therapy: Cream 0.025%, 5 and 15 Gm. tubes, 425 Gm. jars; *for emollient effect:* Ointment 0.025%, 15 Gm. tubes; *for maintenance therapy:* Cream 0.01%, 15 and 45 Gm. tubes, 120 Gm. jars; *for intertriginous or hairy sites:* Solution 0.01%, 20 cc. and 60 cc. plastic squeeze bottles; *for infected inflammatory dermatoses:* Neo-Synalar® Cream (0.025% fluocinolone acetonide, neomycin sulfate, equivalent to 0.35% neomycin base), 5 and 15 Gm. tubes.

CONTRAINDICATIONS: Tuberculous, fungal, and most viral lesions of the skin, (including herpes simplex, vaccinia, and varicella). Not for ophthalmic use. Contraindicated in individuals with a history of hypersensitivity to any of the components. PRECAUTIONS: Synalar preparations are virtually nonsensitizing and nonirritating. However, the solution may produce burning or stinging when applied to denuded or fissured areas. In some patients with dry lesions, the solution may increase dryness, scaling or itching. While topical steroids have not been reported to have an adverse effect in pregnancy, the safety of their use on pregnant females has not absolutely been established. Therefore, they should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time. Prolonged use of any antibiotic may result in overgrowth of nonsusceptible organisms; if this occurs, appropriate therapy should be instituted. When severe local infection or systemic infection exists, the use of systemic antibiotics should be considered, based on susceptibility testing. SIDE EFFECTS: Side effects are not ordinarily encountered with topically applied corticosteroids. As with all drugs, however, a few patients may react unfavorably to Synalar under certain conditions. The neomycin in Neo-Synalar Cream rarely produces allergic reactions.

REFERENCES: 1. Lerner, L. J., Bianchi, A., Turkheimer, A. R., Singer, F. M., and Borman, A.: Anti-inflammatory steroids: potency, duration and modification of activities. Ann NY Acad Sci 116:1071 (Aug. 27) 1964. 2. Idem: Comparison of anti-granuloma, thymolytic and glucocorticoid activities of anti-inflammatory steroids. Proc Soc Exp Biol Med 116:385 (June) 1964. 3. Ringler, A.: Activities of adrenocorticosteroids in experimental animals and man, in Dorfman, R. I.: Methods of hormone research, New York, Academic Press, 1964. vol. III. pp. 234-280. 4. Gubersky, V. R.: To be published.

fluocinolone acetonide — an original steroid from

SYNTEX LABORATORIES INC., PALO ALTO, CALIF.

For inflammatory dermatoses... by any measure a topical corticosteroid of choice

Synalar® (fluocinolone acetonide)

Milligram for milligram one of the most active topical corticosteroids available

Rapid and predictable in antiinflammatory and antipruritic activity

Results often comparable to those of systemic corticosteroids with fewer hazards

for that added measure of protection

SIGNEM

A 'MAXIMUM SECURITY' ANTIBIOTIC*

* THE BROAD RANGE DEPENDABILITY OF TETRACYCLINE
long established as the broad-spectrum agent of first choice in a wide variety of infections

* WITH THE ADDED SECURITY OF MEDIUM-SPECTRUM REINFORCEMENT
triacetyloleandomycin is highly active against the common 'coccal' pathogens, including certain strains of staphylococci resistant to penicillin and tetracycline

* ESPECIALLY VALUABLE IN U.R.I.
provides decisive therapy in acute respiratory infections and other conditions in which staphylococci, streptococci or mixed flora are frequently encountered

* NOW AVAILABLE IN NEW STRENGTH FOR NEW CONVENIENCE AND ECONOMY
Signemycin 375—high-potency capsules for simpler administration, greater patient economy

?CIN® 375

(tetracycline HCl 250 mg. triacetyloleandomycin 125 mg.)

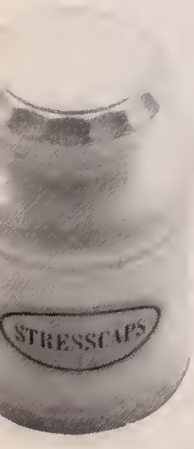
ications: Indicated in the therapy of acute severe infec-
s caused by susceptible organisms and primarily by
teria more sensitive to the combination than to either
nponent alone. In any infection in which the patient can
expected to respond to a single antibiotic, the combina-
is not recommended. Signemycin should not be used
ere a bacteriologically more effective or less toxic
nt is available. *Triacetyloleandomycin, a constituent of*
nemycin, has been associated with deleterious changes
ver function. See precautions and adverse reactions.
traindications: Contraindicated in individuals who have
wn hypersensitivity to any of its components. Not recom-
nded for prophylaxis or in the management of infectious
cesses which may require more than 10 days of con-
ous therapy. If clinical judgement dictates therapy for
ger periods, serial monitoring of liver function is recom-
nded. Not recommended for subjects who have shown
ormal liver function tests, or hepatotoxic reactions to
cetyloleandomycin.
cautions and Adverse Reactions: Triacetyloleandomycin,
ninistered to adults in daily oral doses of 1.0 gm. for 10
nore days, may produce hepatic dysfunction and jaun-
. Adults requiring 3 gm. of Signemycin initially should
e liver function followed carefully and the dosage should
reduced as promptly as possible to the usual recom-
nded range of 1.0 to 2.0 gm. per day. Present clinical
erience indicates that the observed changes in liver function are reversible after discontinuation of the drug.
Use with caution in lower than usual doses in cases with renal impairment to avoid accumulation of tetracycline and possible liver toxicity. If therapy is prolonged under such circumstances, tetracycline serum levels may be advisable. In long term therapy or with intensive treatment or in known or suspected renal dysfunction, periodic laboratory evaluation of the hematopoietic, renal and hepatic systems should be done. Formation of an apparently harmless calcium complex with tetracycline in any bone forming tissue may occur. Use of tetracycline during tooth development (3rd trimester of pregnancy, infancy and early childhood) may cause discoloration of the teeth. Reversible increased intracranial pressure due to an unknown mechanism has been observed occasionally in infants receiving tetracycline. Glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis and definite allergic reactions occur rarely. Severe anaphylactoid reactions have been reported as due to triacetyloleandomycin. Photosensitivity and photoallergic reactions (due to the tetracycline) occur rarely. Medication should be discontinued when evidence of significant adverse side effects or reaction is present. Patients should be carefully observed for evidence of overgrowth of nonsusceptible organisms including fungi, which occurs occasionally, and which indicates this drug should be discontinued and appropriate therapy instituted. Steps should be taken to avoid masking syphilis when treating gonorrhea.

J. B. ROERIG DIVISION
CHAS. PFIZER & CO., INC.
235 EAST 42nd STREET
NEW YORK, N.Y. 10017



in alcoholism:

B and C vitamins aid therapy. Therapeutic amounts of B and C vitamins ca be important in the management of the alcoholic patient. In alcoholism, as many chronic illnesses, STRESSCAPS vitamins aid therapy.



Stresscaps®

Stress Formula Vitamins Lederle

FOR PROFESSIONAL RECOMMENDATION ONLY

Each capsule contains:	
Vitamin B_1 (as Thiamine Mononitrate)	10 mg
Vitamin B_2 (Riboflavin)	10 mg
Vitamin B_6 (Pyridoxine HCl)	2 mg
Vitamin B_{12} Crystalline	4 mcgm
Vitamin C (Ascorbic Acid)	300 mg
Niacinamide	100 mg
Calcium Pantothenate	20 mg

Recommended intake: Adults, 1 capsule daily, for the treatment of vitamin deficiencies. Supplied in decorative "reminder" jars of 30 and 100; bottles of 500.

LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York

691—6—3942

"Take a laxative" is a harsh sentence

Although there are more than 60 ethical laxatives available for the constipated patient, many, unfortunately, do not really produce an effect much like a normal bowel movement. Instead they whip the bowel, torment it and leave it irritated, inflamed and exhausted.

On the other hand, Dulcolax provides a nearly, normal movement. Through its unique contact action, it induces the kind of natural contraction waves of the colon necessary for gentle, complete, comfortable bowel movements.

For your next constipated patient, try Dulcolax–the laxative with the gentle touch.

Dulcolax, brand of bisacodyl tablets (5 mg.)

Under license from Boehringer Ingelheim G.m.b.H.

Geigy Pharmaceuticals
Division of
Geigy Chemical Corporation
Ardsley, New York

Dulcolax®
a gentle persuasion

Geigy

Against these three major pathogens…



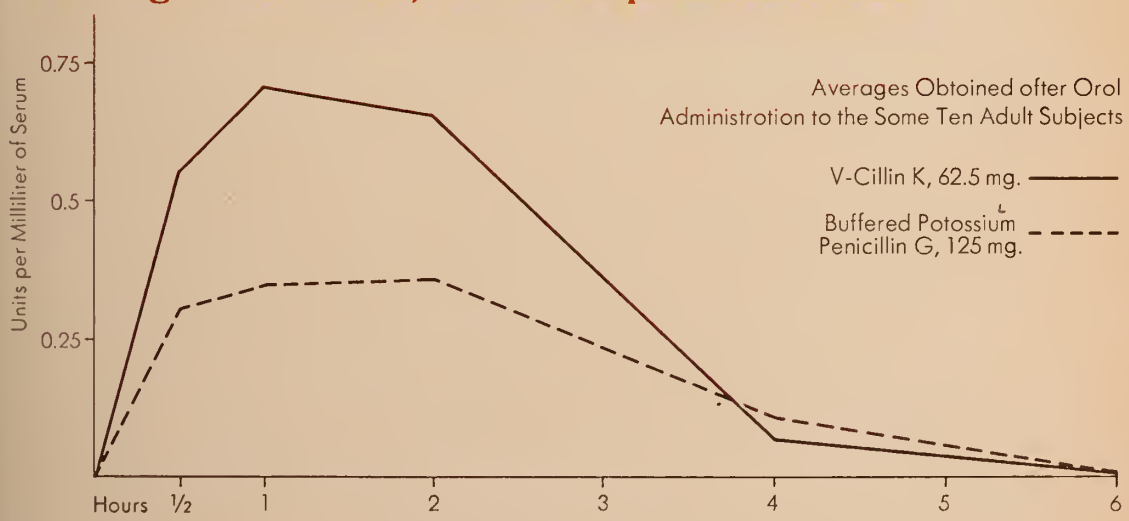
V-Cillin K® provides unexcelled oral antibacterial activity

because it combines a high degree of in-vitro activity...

Antibiotic	Staph. Aureus (Penicillin-Sensitive) MIC (mcg./ml.) Median	Range	Streptococcus, Group A MIC (mcg./ml.) Median	Range	Diplococcus Pneumonioe MIC (mcg./ml.) Median	Range
Penicillin V	0.02	0.02-0.04	0.02	0.003-0.4	0.01	0.005-0.2
Penicillin G	0.02	0.005-1.6	0.005	0.002-0.2	0.02	0.01-0.1
Methicillin	1.6	0.4-6.3	0.2	0.1-0.4	0.2	0.1-1.6
Oxacillin	0.4	0.1-3.1	0.04	0.02-0.4	0.1	0.04-0.8
Cloxocillin	0.2	0.2-0.8	0.1	0.1-0.8	—	—
Nafcillin	0.4	0.2-0.8	0.04	0.02-0.1	0.02	0.02-0.2
Ampicillin	0.2	0.1-0.8	0.02	0.01-0.04	0.02	0.01-0.04

Adapted from Klein, J. O., and Finland, M. New England J. Med.,269 1019, 1963.

with high blood levels, even in the presence of food



Adapted from Griffith, R. S , and Black, H. R Current Ther. Res., 6 253, 1964.

V-Cillin K®

Lilly 700157

Potassium Phenoxymethyl Penicillin

(See next page for prescribing information

New 500 mg. tablets...a more convenient way to give high doses



Description: V-Cillin K is the potassium salt of V-Cillin® (phenoxymethyl penicillin, Lilly). This chemically improved form combines acid stability with immediate solubility and rapid absorption. Higher serum levels are obtained more rapidly with this penicillin than with equal oral doses of penicillin G. The higher serum levels and acid stability of V-Cillin K make it a more dependable penicillin for oral use.

V-Cillin K, Pediatric, is an oral solution of clinically proved V-Cillin K in teaspoon dosage form. When mixed as directed, each 5 cc. (approximately one teaspoonful) will contain 125 mg. (200,000 units) phenoxymethyl penicillin as the potassium salt.

Indications: V-Cillin K has been shown to be effective in the treatment of streptococcus, pneumococcus, and gonococcus infections as well as infections caused by sensitive strains of staphylococci. It may be used for the prophylaxis of streptococcus infections in patients with a history of rheumatic fever and for the prevention of bacterial endocarditis after tonsillectomy and tooth extraction in those patients with a history of rheumatic fever or congenital heart disease.

Contraindication: V-Cillin K should not be administered to a patient with a history of penicillin hypersensitivity.

Precautions: V-Cillin K should be used cautiously, if at all, in a patient with a strongly positive history of allergy. Reactions occur more frequently in individuals with bronchial asthma or other allergies or in those who have previously demonstrated sensitivity to pe... hypersensitivity reactions occur, the drug should be discontinued

Adverse Reactions: Although serious allergic reactions are ... less common with administration of oral penicillin than with intram... lar forms, skin rash, symptoms resembling those of serum sickne... other manifestations of penicillin allergy may occur. When penici... administered, measures for treating anaphylaxis should be re... available. Those include epinephrine, oxygen, and pressor drug... relief of immediate allergic manifestations as well as antihis... and corticosteroids for delayed effects.

The use of antimicrobial agents may be associated with the ... growth of antibiotic-resistant organisms; in such a case, antibio... ministration should be stopped and appropriate measures taken

Administration and Dosage: For Tablets V-Cillin K and for ... K, Pediatric, the usual dosage ranges from 125 mg. (200,000 ... three times a day to 500 mg. (800,000 units) every four hours F... fants, the daily dosage may be 50 mg. per Kg. of body weight d... into three doses.

Beta-hemolytic streptococcus infections without associated b... remia may be treated with 200,000 to 400,000 units three times a... Therapy should be continued for a minimum of ten days to prev... velopment of rheumatic fever and/or other serious complicatio... age for routine streptococcus prophylaxis in patients with a h sto... rheumatic fever or congenital heart disease may be 200,000 un... s... or twice daily. When such patients undergo tonsillectomy, tooth e... tion, or other minor surgery, the prophylactic dose should be 50... units every six hours given two days prior to surgery and for tw... postoperatively. If oral medication is not feasible on the day ... gery, parenteral therapy should be considered. Mild to mode... severe pneumococcus pneumonia has been treated effective... 250 mg. every six hours.

In staphylococcus infections, 400,000 units or more should b... every six to eight hours in conjunction with indicated surgica... p... dures.

For gonorrhea in males, 500 mg. (800,000 units) every six ho... three doses may be employed; in females, 500 mg. every four ho... six doses are recommended. Patients with a suspected lesion of sy... should have a dark-field examination before receiving penici... monthly serologic tests for a minimum of three months.

How Supplied: Tablets V-Cillin K, U.S.P., 125 mg. (200,000 ... bottles of 50 and 100; 250 mg. (400,000 units), and 500 mg. (8... units) in bottles of 24 and 100.

V-Cillin K, Pediatric, for Oral Solution, 125 mg. (200,000 un... 5 cc. of solution, in 40, 80, and 150-cc.-size packages.

Additional information available to physicians upon request. Eli Lilly and Company, Indianapolis, Indiana 46206.

Lil

DEPRESSION



NORPRAMIN®
(desipramine hydrochloride)

ANTIDEPRESSANT FOR RAPID IMPROVEMENT

At the recommended dosage level —initially, 150 mg. per day— gratifying remission of the signs and symptoms of depression typically begins in 2-5 days. Its specificity for depression, rapidity of action and usually mild side effects are significant reasons for prescribing NORPRAMIN (desipramine hydrochloride) in depression of any type . . . any degree of severity.

A few patients, sensitive to central nervous system stimulants may become restless as depression is lifted—in such cases dosage may be reduced or a tranquilizer added.

LAKESIDE

IN BRIEF:

INDICATIONS: In depression of any kind —neurotic and psychotic depressive reactions; manic-depressive or involutional psychotic reactions.

CONTRAINDICATIONS: Glaucoma, urethral or ureteral spasm, recent myocardial infarction, severe coronary heart disease, epilepsy. Should not be given within two weeks of treatment with a monoamine oxidase inhibitor.

RELATIVE CONTRAINDICATIONS: (1) Patients with a history of paroxysmal tachycardia. (2) Patients receiving concomitant therapy with thyroid, anticholinergics or sympathomimetics may experience potentiation of effects of these drugs. (3) Safety in pregnancy has not been established.

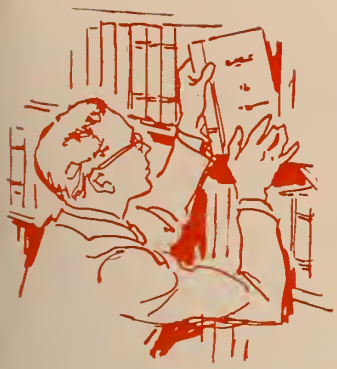
PRECAUTIONS: (1) Outpatient use of desipramine hydrochloride should not be substituted for hospitalization when risk of suicide or homicide is considered grave. (2) If serious adverse effects occur, reduce dosage or alter treatment. (3) In patients with manic-depressive illness a hypomanic state may be induced. (4) Discontinue drug as soon as possible prior to elective surgery.

ADVERSE EFFECTS: Side effects, usually mild, may include: dry mouth, constipation, dizziness, palpitation, delayed urination, "bad taste," sensory illusion, tinnitus, anxiety, agitation and stimulation, insomnia, sweating, drowsiness, headache, orthostatic hypotension, flushing, nausea, cramps, weakness, blurred vision and mydriasis, rash, tremor, allergy, agranulocytosis, altered liver function, ataxia, and extrapyramidal signs.

DOSAGE: Optimal results are obtained at a dosage of 50 mg., t.i.d. (150 mg./day). **SUPPLIED:** NORPRAMIN (desipramine hydrochloride) tablets of 25 mg.; bottles of 50, 500 and 1000; and tablets of 50 mg., in bottles of 30, 250 and 1000.

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201


ECONOMICAL!
CORDRAN®
FLURANDRENOLONE
Half Strength
Lilly
cream and ointment
Additional information available to physicians upon request.
Eli Lilly and Company, Indianapolis, Indiana 46206.
600611



Scientific Articles

Experience With Intrauterine Contraceptive Devices

QUENTIN C. DeHAAN, M.D.

Of the contraceptive methods in use the oral contraceptive pill and the intrauterine device are currently the most popular. My interest in intrauterine contraception developed following a discussion of their use by Margulies[1] at the 1964 annual meeting of the American College of Obstetricians and Gynecologists.

Margulies began in 1958 to explore intrauterine devices for contraception. After much trial and error he developed a polyethylene spiral and a thin plastic tube through which it could easily be inserted. The spiral carries a threadlike tail punctuated with seven plastic beads. The technique simply involves feeding the device into the insertion tube, inserting the tube through the endocervical canal into the uterus, and, by pushing the device with a metal plunger, have the spiral assume its original shape in the intrauterine cavity. Before insertion the inserter is rotated 90 degrees in order that the device can recoil in the frontal plane of the uterus. Prior to insertion pelvic examination is made to determine anteflexion or retroflexion of the uterus and the uterine cavity is sounded with a standard intrauterine sound.

Medical Director and Chief, Department of Obstetrics and Gynecology, Polk County Hospital, Bartow.

Study

Beginning in September 1964, the Polk County Hospital adopted the intrauterine coil manufactured by the Ortho Pharmaceutical Company under the trade name of Gynekoil. A goal was set to insert 100 such devices and then evaluate our experience before going on. The first device was inserted on Sept. 30, 1964, and the one-hundredth device on Nov. 15, 1965. The insertions were performed by me and by members of the house staff (interns). Eight interns rotating through the obstetrical-gynecological service were involved. After two demonstrations the intern was allowed to do the procedure unattended. Behind this idea was the thought that if intrauterine devices are to achieve widespread usage, personnel other than obstetricians would of necessity become involved.

The patients in this series consisted of medically indigent persons both Caucasian and Negro referred to the outpatient clinic from the Public Health Department of Polk County. Some were referred from the medical and psychiatric clinics. Unmarried women were accepted providing they had had one previous child. There was no age limitation and no effort was made to determine

their reliability or cooperativeness. The regular-sized Gynekoil was used in all patients. No attempt was made for routine periodic follow-up. Each patient was given an instruction sheet warning of possible abnormal bleeding or pelvic discomfort. At least once weekly she was instructed to examine herself in the same position she assumed during its insertion. If one or more beads were felt, she was advised to come in for examination.

Results

Thirty-seven patients were Caucasian and 63 were Negro. The uterus was anterior in position in 70, in mid-position in 16, and retro-displaced in 14. The youngest patient in the study was 15 and the oldest 41 years of age. At the initial insertion protruding beads were cut off in all but two patients. Between three and six beads were removed from the majority. Three required removal of the entire tail of the device. Initially the device was inserted just prior to mid-cycle so as to avoid interference with a possible pregnancy. Toward the end of the study insertions were made during a regular menses. Complications according to frequency were: bleeding 16, felt protruding 14, pelvic pain nine, fell out six, husband complaint six, increased discharge four, and infection two.

Fourteen patients felt the device protruding at various times after insertion and returned for examination. Additional beads were removed at this time. Three patients reported inability to feel the device and were concerned. On examination the device was found retracted into the uterine cavity. Removal was accomplished by using a Randall stone forceps, which proved to be a most satisfactory instrument in these cases. Two devices were removed by private physicians because of abnormal bleeding. Seventeen devices had to be removed for three main reasons: bleeding in eight, pelvic pain in six, and husband complaint in three. Reinsertions were performed in five patients. Two patients removed the device without cause. Both of these patients had been referred from the psychiatric service.

The most serious incident was a perforation of the uterus which must have occurred at the time of insertion. The patient was a 22 year old woman, para 4-0-0-4. An initial attempt at the insertion was made on July 22, 1965, and failed. A week later insertion was accomplished which was described as "difficult." On November 23, she reported to the clinic with signs and symptoms of early pregnancy. The device could not be seen and the uterus was approximately eight weeks gestational size. A film of the abdomen showed the device lying free in the peritoneal cavity at the level of the fifth lumbar vertebra. Exploratory celiotomy was performed on November 28. The device was found caught up in the tail of the omentum causing no unusual reaction. Bilateral partial salpingectomy was carried out according to the wishes of the patient and her husband. The device was removed at this time. The pregnancy has progressed uneventfully to the present.

Forty-three patients have experienced no complication relative to the device. No pregnancies have resulted in any patient in whom the device has been satisfactorily tolerated.

Comment

The time elapsed since the beginning of the study and the smallness of the study group do not allow for definite conclusions. One certainly must question, however, the efficacy of a procedure handled by relatively inexperienced personnel. This becomes important in regard to mass usage in areas where population control is needed to reach thousands of women. It may be noted that in the patients in whom the device was found retracted into the uterine cavity, practically all of the tail had been removed.

Additional visits requiring pelvic examination because of bleeding, pelvic pain, or feeling the device protruding numbered 28. One can readily appreciate the time implication involved here.

While intrauterine contraceptive devices are attracting widespread attention, the problems that have arisen from their use must all be solved before they can be confidently utilized. In areas where malpractice suits flourish, extreme caution seems to be in order before accepting responsibility for the consequences of a procedure associated with this many problems.

Reference

1. Margulies, L. C.: Permanent Reversible Contraception with an Intra-Uterine Plastic Spiral (Perma-Spiral), Proc. IUCD Cong., 1962. Excerpta Medica Foundation, Internat. Congress Series No. 54.

Dr. DeHaan, Polk County Hospital, Bartow 33830.

Methods of Wound Closure

JOHN W. SNOW, M.D.

Five methods are presently available for closing wounds and re-establishing tissue continuity. Historically, healing by secondary intent should be listed first. Wound healing after primary closure is the most common method, followed by free grafts, flaps of all varieties, and transpositioning of tissue with re-establishment of blood supply by primary vascular anastomosis at some distant site. Each method will be examined in detail.

Healing by Secondary Intent

This ancient technique of allowing an open wound, such as a wound in the surface of the skin, to heal spontaneously by scar contracture and re-epithelization is still utilized frequently today. It gives satisfactory cosmetic results if the defect is small and there is no resistance to contracture. This method is beautifully adapted in the animal kingdom where, for instance, in a medium-sized dog an eight by eight inch defect of the skin will heal secondarily within three to four weeks with little scarring. Healing is possible because of the loose skin available. A wound such as this heals not by contraction of scar tissue across the defect but by a circumferential, purse-string effect which gradually reduces its size. The middle portion of the wound can be removed at weekly intervals without delaying wound healing, as long as the

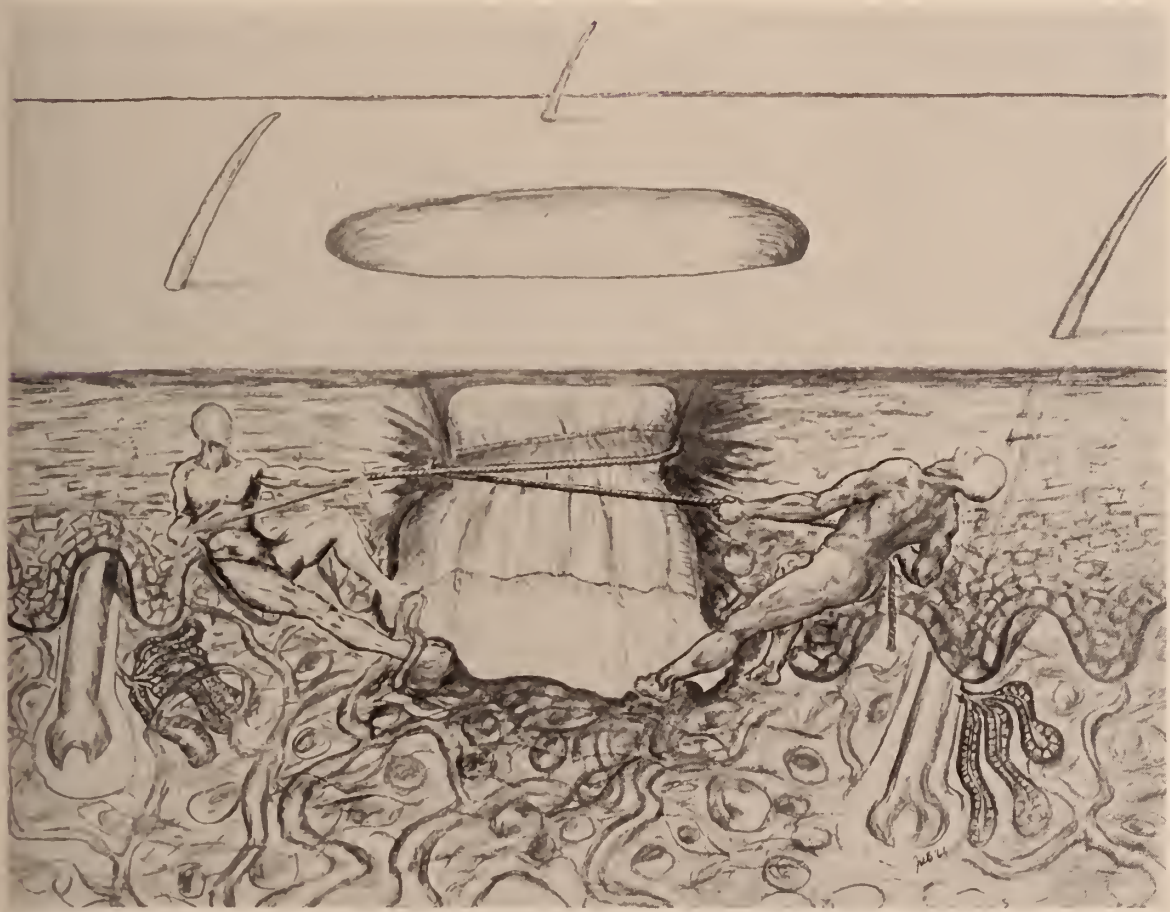


Fig. 1.—Diagram of a wound of the skin and subcutaneous tissue demonstrating how healing by secondary intent does so by means of a circumferential purse-string effect which gradually reduces its size.



Fig. 2.—A. Comminuted laceration of the forehead. The entire wound margin was excised approximately along the dotted line. B. This photograph shows the closure at one week and the slight humped-up appearance of the wound.

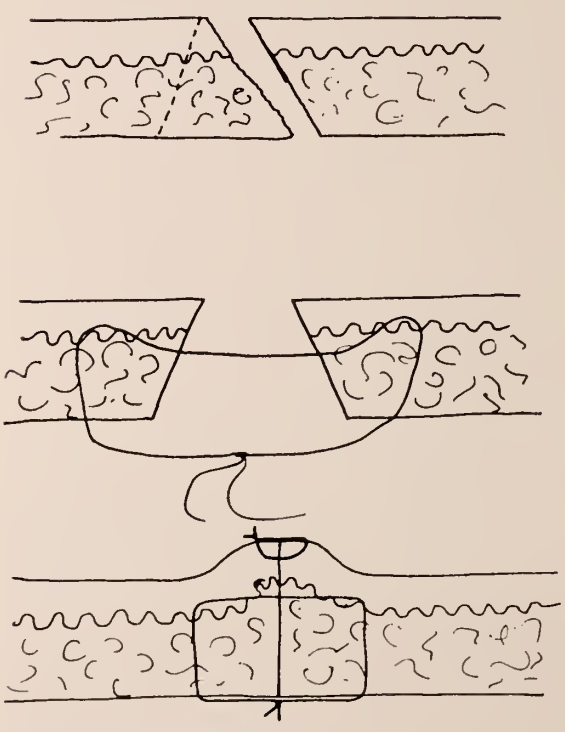


Fig. 3.—A. Debridement and inward beveling of the skin margin. B. A deep subcuticular stitch inserted with the knot in the depth of the wound. C. The deep stitch tied so that a heaped-up mound is formed. A loose silk suture has been applied to approximate accurately the epithelial surfaces.

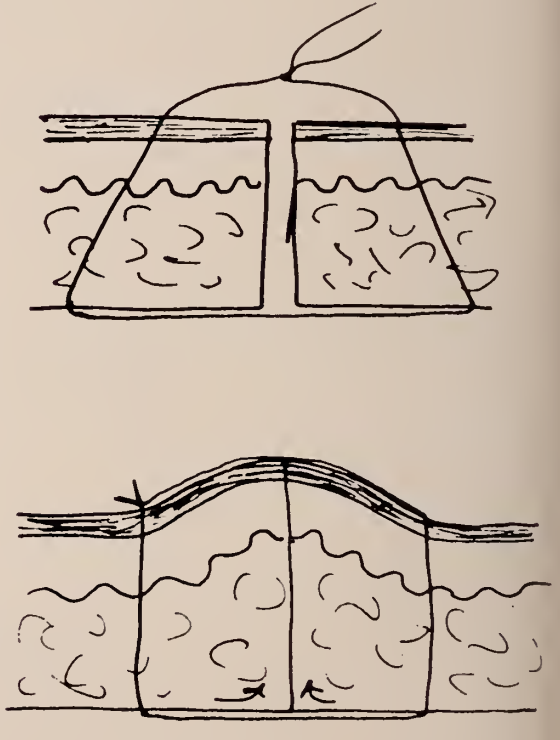


Fig. 4.—When it is not advisable to leave buried sutures, as in the hand, the stitch should be inserted so that the edges are everted. This is done by diagonally inserting the suture through the skin so that it is farther from the cut surface in the base of the wound than at the surface.

continuity of the perimeter of the lesion is left intact. When this continuity is incised, just as incising a purse-string, wound healing is delayed. Figure one demonstrates this process.

Primary Closure

Primary closure of wounds involves approximation of the wound margins by direct suture. The most cosmetically acceptable resultant scar is often a primary concern. Several points regarding technique should be stressed. When the wound margins are jagged and irregular, the entire margin should be carefully excised to obtain a smooth edge (fig. 2).

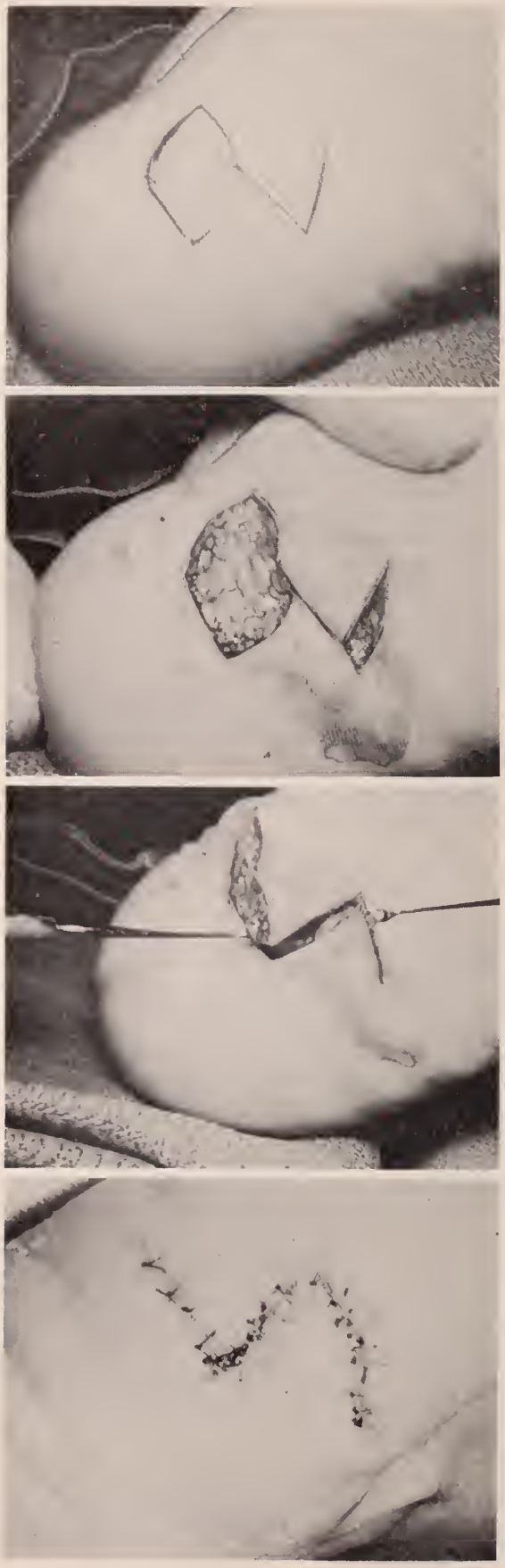
The edge should be beveled inward. This method reduces the probability of a "bumper" being interposed between the layers of the dermis and gives better approximation and impaction of the edges of the skin. If the edge is beveled outward, it should be carefully excised to reverse this condition. Any space between epithelial edges will be filled with granulation tissue and leave an unsightly scar. The margin of the wound should be slightly undermined so that the edges can be everted with a deep subcuticular interrupted stitch, inserted to leave the knot in the depth of the wound. The stitch is inserted into the deep



Fig. 5.—Picture depicts Berronio meditating over a demonstration that he had seen by two charlatans selling a healing balm. One cut a fragment of skin from her abdomen, passed it around to the surrounding crowd and then reinserted it into its raw bed and applied the "healing balm." When Berronio examined this area 10 days later, the fragment of tissue had regrown and the wound had healed without scarring. This demonstration subsequently led to his successful experimentations with free grafts on sheep in 1806.



Fig. 6.—Skin flaps can generally be divided into three types: French, Indian and Italian.



dermis one to one and a half centimeters lateral to the wound edge. Here the tension of the closure is absorbed. When properly done, the wound margin is elevated as a small mound and the edges are everted and impacted into one another. Within two months this mound will "let down" and by that time the scar will have matured and will be less likely to widen or cave in (figs. 3 and 4).

If additional sutures are necessary to approximate accurately the epithelial edges, they should be inserted loosely. An intercuticular pullout stitch is sometimes useful at this point and preferable if much swelling is anticipated. With moderate swelling, even loosely applied interrupted skin sutures may cut into the skin. Care should be taken not to damage the skin edges with pick-ups. Hemostasis is best obtained by a microcautery.

In summary, the main points are debridement of wound margins and excision of the entire wound if it is a jagged or comminuted laceration, being careful to bevel the edges of the wound inward; and insertion of a deep subcuticular stitch, so as to approximate the wound margins in an everted position so that a heaped-up, mound type closure is formed with the skin edges impacted.

Free Grafts

A free graft is a fragment of tissue which is completely severed from its blood supply, then inserted into a recipient bed from which it is revascularized. Many structures have been used as free grafts, including tendon, bone, skin, cornea, cartilage, arteries and veins. Skin is the most commonly used free graft, first done in modern times by Berronio in 1809 (fig. 5). A partial thickness (split-thickness) or full thickness of skin is usually utilized for grafts.

Fig. 7.—This plantar wart on the heel had been surgically removed five times previously. It was widely excised and a Dufourmentel type closure of the resulting almond-shaped defect performed. This utilizes a pedicle flap and Z-plasty combination which breaks up the line of tension in the mid portion of the wound and closes its own donor site. Moderately large, oval-shaped defects can be closed in this manner and it is particularly efficacious on the extremities.[1]

Three factors are necessary for a skin graft to "take:"

1. Relative asepsis.
2. Apposition of the graft to the recipient site without air, serum, blood or pus between them.
3. Immobilization is the most frequently ignored factor and results in the shearing off of ingrowing capillaries. Generally speaking, the joint above and below the lesion should be immobilized. The texture of the graft will be better if immobilization is continued for three to four weeks. A skin graft will not take on cortical bone or exposed tendons.

What are the advantages of the split-thickness graft?

1. An abundant amount is available and it can be taken from anywhere on the body, including the scalp and the soles of the feet.
2. Donor sites heal primarily. They do not have to be grafted or closed and can be recropped in three to four weeks.
3. The take rate is high (85 to 95%).
4. It is easily done technically.
5. A large amount of the body can be covered.
6. It will take on a granulating and contaminated wound.

The disadvantages of a split-thickness graft are:

1. Contracture rate is high (20 to 30%).
2. Color match is poor.
3. It will not withstand wear and tear.
4. Texture is not skinlike.
5. It will not accept cosmetics or tattoos.

The split-thickness graft is the "workhorse" of all grafts, but the full thickness graft is the "queen." Its advantages are:

1. Color match is better. Skin from the postauricular, superclavicular or inner aspect of the upper arm gives the best color match for the face.
2. The texture of the graft is more skinlike.
3. It will withstand wear and tear better than the split-thickness graft.
4. It will accept cosmetics and tattoos.
5. There is little contracture.

The disadvantages of a full thickness graft are:

1. The donor site must be closed or grafted.
2. A limited amount is available.
3. It will not take on a granulating or contaminated defect.
4. The take rate is poor.
5. It requires meticulous technique.

Skin Flaps

A skin flap is a segment of tissue separated from its underlying support except for one portion



Fig. 8.—Outline of incision for nasolabial flap so that when it is repositioned, no "dog ear" phenomenon is present. Intervening skin between the flap and the site of excision was excised.







which remains attached and through which it receives its blood supply. Flaps are usually necessary to cover exposed bone or tendons, or to cover weight-bearing areas. The length to width ratio is generally 2:1. A ratio of 3:1 on the face is satisfactory because of the better blood supply. One must also be cognizant of the third dimension, depth. Lack of adequate depth is the most frequent cause for venous congestion and necrosis of the flap. The depth of a flap must be progressively increased as the base is approached. Here the blood vessels must be carefully identified and preserved. They can be dissected out and allowed to swing with the flap. If the depth of the flap makes it too bulky to allow proper skin level, it is often better to deepen the recipient site rather than thin the flap, thus insuring the adequacy of the blood supply (fig. 6).

French.—This is apparently the oldest known method and is characterized by a sliding or advancing fragment of tissue. This method is described in the Rig Veda of 1500 B.C. and probably known as long ago as 5000 B.C. It also included nasolabial flaps and Z-plasties (fig. 7). When it is used for nasal reconstruction, care should be taken in marking out the flap to angulate the base in the direction the flap will assume, thereby preventing the "dog ear" phenomenon (fig. 8).

Indian.—This flap is transferred by a rather acute angulation of the pedicle as classically demonstrated by the forehead flap used in nasal reconstruction. As amputation of the nose was a frequent punishment for infidelity in ancient Indian culture, reconstruction was continuously in demand.

Italian (Tagliacotian).—The flap is transferred by an adjacent moving part as exemplified by nasal reconstruction from the inner aspect of the upper arm. The plate of this technique was published in Tagliacozzi's book in 1597. This type flap includes tubed pedicles. It is not now utilized

Fig. 9.—Avulsion injury of the fingertips of the index, long, and ring finger and thumb. Split-thickness grafts applied to the index and ring finger and thumb. Here one of the usual disadvantages of the split-thickness graft, a high contracture rate, has been used advantageously. As the graft contracts, it pulls in the normal marginal skin, thus decreasing appreciably the area of injury. A pedicle flap was necessary to cover the long finger where the tendon was exposed and could not be covered with local tissue. (Cross finger flap from dorsum of ring finger.) Note the soft, supple nature of the pedicle flap.







Fig. 10.—This figure demonstrates the use of a previously traumatized index finger to obtain full length of the thumb. The stump of the index finger was bypassed in normal grasping. It was transferred on a neurovascular pedicle to the tip of the thumb and dovetailed into the bone at the distal aspect of the thumb. This procedure replaced the missing phalanx of the thumb and gave normal length and sensibility.







Fig. 11.—Reconstruction of the thumb utilizing index finger on pedicle. Sensibility and motion are present.[2]



Figure 12.—Esophageal Reconstruction With a Free Segment of Jejunum. Beginning on the left the diagram illustrates isolation of a segment of jejunum and the artery and vein supplying it; complete severance of this segment of jejunum and nutrient vessels, profusion of the artery to this segment with heparin until it is returned via the vein, and transposition into the neck for re-establishment of its blood supply through primary vascular anastomosis and then re-establishment of esophageal continuity by anastomosis to the proximal and distal esophageal ends. The sketch at the right shows the jejunum being anastomosed to the esophagus. The artery and vein to this segment have already been anastomosed to the external carotid artery and jugular vein.

as frequently as the French and Indian methods (fig. 9).

Other type flaps which are commonly utilized include the island pedicle, where a segment of skin and subcutaneous tissue is elevated on a vascular pedicle and then repositioned in another area. This procedure has been successfully used to reconstruct facial defects. It is used in the hand to restore normal skin and sensibility in the critical area of pinch. Skin and subcutaneous tissue from the ulnar aspect of the ring finger are elevated on a neurovascular pedicle and transferred to the thumb or index finger.[3]

Transposition of a digit for total reconstruction of the thumb is another type of neurovascular pedicle flap which is tremendously useful in restoring congenital or post-traumatic losses of the thumb.

One should not hesitate to utilize a normal index finger where the phalanges of the thumb are absent. If the defect is of traumatic origin, oftentimes the index finger will also have been damaged and can be utilized in reconstructing the thumb (figs. 10 and 11).

The technique of isolating a portion of tissue and its arterial and venous blood supply, completely severing it from its origin, and transferring it to another site for re-establishing blood supply by primary anastomosis to local arteries and veins has been made possible by advancements in vascular surgery and microsurgery. In many areas this technique will facilitate immediate reconstruction without delays and many-staged procedures. This method of esophageal reconstruction was demonstrated at the American College of Surgeons Meeting in Atlantic City in 1962 by Jurkiewicz and Snow (fig. 12).[4]

Summary

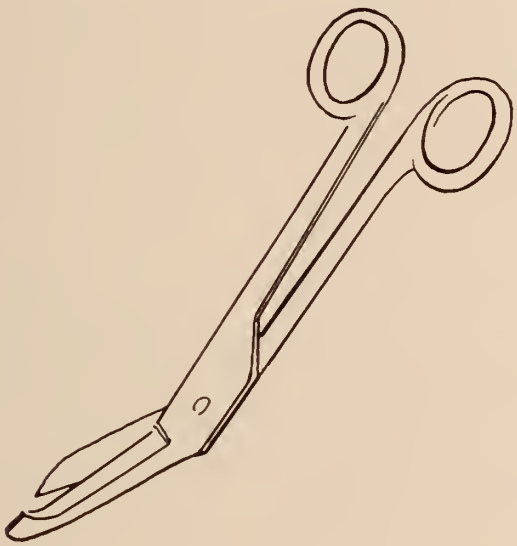
Present methods of closing wounds and establishing tissue continuity are presented. They range from the most primitive method of healing by secondary intent to severance and revascularization of tissue by primary anastomosis to arteries and veins in the recipient site.

Sketches by author; photographs by B. English, Duval Medical Center, Jacksonville.

References

1. Dufourmentel, C.: An L-shaped Flap for Lozenge-Shaped Defects. Trans. Third International Congress of Plastic Surgery, Washington, D. C., 1963. Pp. 772-773.
2. Littler, J. W.: Neurovascular Pedicle Method of Digital Transposition for Reconstruction of the Thumb. Plast. & Reconstruct. Surg. 12:303, 1963.
3. Littler, J. W.: Neurovascular Skin Island Transfer in Reconstructive Hand Surgery. Trans. International Society of Plastic Surgeons, Second Congress, London, 1959, E & S Livingstone, Ltd., Edinburgh & London, 1960.
4. Jurkiewicz, M. J.: Vascularized Intestinal Graft for Reconstruction of the Cervical Esophagus and Pharynx. Plast. & Reconstruct. Surg., 36:509, 1965.

▶Dr. Snow, 2700 Riverside Avenue, Jacksonville 32204.



The Two-Pounds-A-Week Deal

WILLARD E. MANRY JR., M.D.

Millions of people are being constantly persuaded, encouraged or browbeaten with the thought that they should lose weight in order to live longer. Every insurance office, almost every doctor's office, all health department and clinic facilities have the actuarial weight charts posted. These are accepted as proof that everyone should thin himself down to bean pole size and the world will then become overpopulated with ancient skinny people.

Our insurance statistics do indeed show that if one is on the thin side his chances of living longer are much greater than those of the comparable individual on the heavy side. There is no question that this statement is true, but it does not prove that the heavy people will live longer if they lose weight. We have no figures to show conclusively that a person's longevity outlook is improved if he reduces his weight. We know only that thin people live longer than fat people.[5,8]

By scientific rationalization we belabor the poor fat man that he is overloading his heart to supply blood for all the extra tissue he is thoughtlessly making his body carry around. Actually, just as good rationalization can be produced to show that for his brain and liver and gonads to function at maximum level, he requires a particular individual combination of starch and protein and their breakdown products in certain proportions and that a necessary side effect of eating that combination is the production of his personal amount of tissue fat.[9]

We have been insisting to relatives of diabetic patients that if they gain weight they might make their latent diabetes show up; that eating excessive amounts of starches can cause them to gain weight and accordingly precipitate active diabetes. It is just as reasonable, and just as scientific, to conclude that a person with a diabetic diathesis has changes in glucose metabolism beyond his control, that these changes cause him to anabolize more of his food in the process of efficient physiology and, secondarily, to put on weight; that by putting on weight for awhile he defers the appearance of active hyperglycemia, but that it finally breaks through, not because of the overweight, but in spite of it.[3,9] These observations may sound like idle speculation, but many realistic considerations apply to this point of view.

A number of studies have demonstrated clearly that the undertaking of a vigorous weight-losing routine is fraught with dangers of many and diverse difficulties, and an extremely high percentage of outright failure.[6,7,8] As a matter of fact, the percentage of ultimate failures is undoubtedly much higher than that shown in published data. About the longest interval involved in anybody's published results involves one year after the beginning of the dietary routine.

Several years ago, after watching a number of my obese patients lose a substantial number of pounds as a result of the costly attentions of an "osteopathic endocrinologist" (weight loss specialist), I became rather impressed. A few months later several of those patients started coming back to me with various difficulties such as gouty arthritis from the chlorothiazide preparations. I became much more impressed, however, some 18 months to two years later when essentially all of such patients had returned to me, now back to the same weight they carried before they started with the "specialist."

My curiosity about this possibly mistaken point of view about weight was first aroused by a snuff-dipping old grandmother of one of my patients. For reasons that I thought were substantial, I had finally succeeded in browbeating this young woman into losing 25 pounds because

of her obesity. Her old granny volubly disapproved and she brought something forcibly to my attention one day when I made a house call on her.

"Young doctor, Gloria sure is having to run up a lot more doctor bills since she lost them 25 pounds," she said to me. Driving back to town, I realized this statement was true. Gloria had been troubled with one difficulty after another during the three months in which she had her weight down to this lower level. Most of her complaints were evidently largely functional, but she was miserable nevertheless. Soon she moved to another city and I saw her several months later, back to her original weight, feeling fine, and needing no medical attention.

I can well remember my rather smug series of thoughts. I was amused at the wrong conclusions people can come to without scientific training. Then I had a few more cases in subsequent years in which the evidence was again rather convincing that I had produced not better health but sometimes poorer health in the process of making my patients lose weight.

The Concept

This outcome, of course, led me to closer observation of weight loss efforts and their results, on the part of many patients, mine and others. It has now become categorically obvious that weight loss activities are not only harmful in some instances, but *ultimately fruitless in practically all instances*. Measured against a sufficient interval of time, essentially all weight losers eventually return to their original weight.[7,8] The occasional exceptions are amazingly few. Many apparent exceptions turn out to have lost weight as a result of ill health, not on a prophylactic basis.

It has been stimulating in discussion of this idea with other physicians to challenge them to consider their patients and take issue with this concept. Not one physician claimed he could effectively accept the challenge.

If this idea be valid, if we are unable to produce a permanent change in a person's overweight, we must necessarily carry our conjecture one step further and consider the possibility that it is this way because this is the way it should be. Perhaps, indeed, the patient who is overweight would not live longer by forcing a weight loss but perhaps even live a shorter time.[1,8]

Many elements undoubtedly play a role: A person's age, body build, sex, babyhood influences, parity, social position, financial position, marriage relationship, antecedents, profession or occupation, geographical residence, availability of various foods, cultural standards, climate, mores, education, emotional problems, vanity, smoking habits, health history and undoubtedly many others.[1,2,4,5,9]

Jolliffe's concept of the "appestat"[2] was more limited than the idea we are proposing at this point. Our concept involves an all-inclusive physiological control mechanism that creates a body demand (appetite) for a certain amount of available specific foods to fulfill the specific chemical needs of a particular individual.[1] This mechanism ultimately produces a stabilized weight at a given level for that particular food intake. This weight is unalterable (allowing a few pounds fluctuation) except on a transitory basis or by substantially changing a physiological factor.

The use of the amphetamines and other so-called "appetite killers" alters none of the foregoing statements. During such time as a patient is taking the amphetamine his body physiology may be altered sufficiently by the drug to produce some degree of change in chemical needs. Rather soon, even this begins to lose effectiveness and the patient may continue taking the drugs yet fail to lose further weight. Sometimes even while taking the drug, and almost invariably after discontinuing it, the patient's weight returns to the original level. Continuation of the medication is demanded by a large number of patients even in the face of the failure to lose weight, for the obvious reason of the desirable state of euphoria produced.

The Deal

Drugs do not effectively help in solving anyone's weight problem. I have been able to prove this result to my own satisfaction and to the satisfaction of every patient who doubts my statement. I tell the patient that he must lose weight without benefit of drugs or he will not be able to keep it off. This statement is always followed by the plea, "If only I can get started, I can do the rest of it without drugs."

This patient routinely disbelieves my contention and so I offer him (usually her) the drug free as long as it works. I make a "deal" with the patient—I will give him a one week supply of

effective medication, and if at the end of the week he has lost two pounds or more, I will give him another week's supply. He must lose at least two pounds in the course of any given week to qualify; if he does not, he may have the next week's supply of pills as soon as he has lost the whole two pounds. This medication is provided along with a sheaf of reading material on weight loss, plus any advice and help that the patient requests, all at no charge. This proposal invariably elicits a favorable response in the mind of the patient. It is ultimately fair; it makes an effort to eliminate everything standing in the way of the weight loser. The two pounds a week is acceptable as a reasonable minimum.

I have made this "deal" with 192 patients. More than half failed to return for the third week's supply of tablets. The remainder fell away rapidly thereafter; only one patient returned for eight successive weeks of medication. She lost 23 pounds, six pounds the first week, five pounds the next week and the remainder just squeaking by each time. She finally reached a plateau at which her weight failed to decline. The medication was accordingly denied, and she promptly started regaining the weight. Of course, I have had a few exceptional patients who lost much more than 23 pounds, but not on this "deal."

This proposition has the salutary effect of permanently stopping such patients from demanding the medication purely for weight loss. Thereafter they admit, at least to themselves, that they want the drug for its stimulating effect, which of course is the real reason for the large quantities of amphetamines consumed in the United States.

My advice to my patients consists of simple emphasis on moderation in food intake, comparable to the need for moderation in all things. I say to the patient that I have no way of measuring what his particular need should be, that I believe he should sincerely try to avoid excess and then pay no attention to what the scale says.[9]

References are available from the author upon request.

▶Dr. Manry, P.O. Box 1140, Lake Wales 33853.



The Perinatal Mortality Problem in Florida

A Possible Solution

GUNNARD J. ANTELL, M.D.

A review of neonatal mortality for Florida and the United States (fig. 1) reveals that Florida's rate from 1940 to 1965 has been consistently higher than that for the United States.

$$\text{Neonatal mortality rate} = \frac{\text{total neonatal deaths}}{\text{total live births}} \times 1{,}000.$$

The reason is readily evident when one compares the perinatal mortality rates of the white and nonwhite races (fig. 2). The rate of the nonwhite race is nearly twice that of the white race.

$$\text{Perinatal mortality rate} = \frac{\text{total neonatal deaths} + \text{stillborn}}{\text{total livebirths} + \text{stillborn}} \times 1{,}000.$$

Figure three depicts 'total' 1960-1964 perinatal mortality rates (PNMRs) for Florida, by counties, without regard to race. The Florida average was 35.6 for this period. Twelve counties had a rate which was over 45. These were Holmes, Calhoun, Gadsden, Jefferson, Madison, Lafayette, Baker, Citrus, Sumter, DeSoto, Glades and St. Lucie. One county, Flagler, had a rate of over 60.

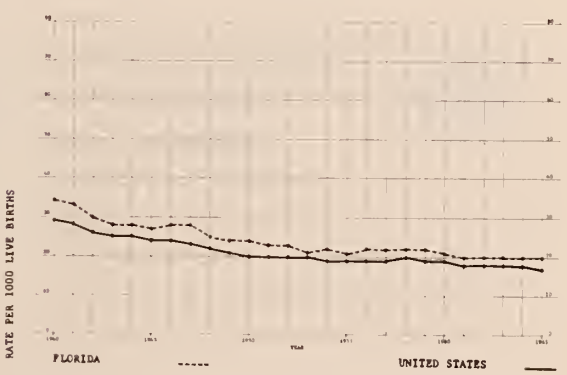
Figure four depicts 1960-1964 PNMRs for Florida by counties for the nonwhite race. The nonwhite average was 51.3. Sixteen counties had a rate above 60. These were Holmes, Calhoun, Flagler, Jefferson, Washington, Lafayette, Dixie, Baker, Nassau, Citrus, St. Johns, Sumter, Highland, DeSoto, Glades and Lee.

Chairman, Committee on Foetus and Newborn, Florida Pediatric Society.

Figure five depicts 1960-1964 PNMRs for Florida, by counties for the white race. The white average was 29.9. Only three counties had rates over 45. These were Calhoun, Jefferson and Lafayette.

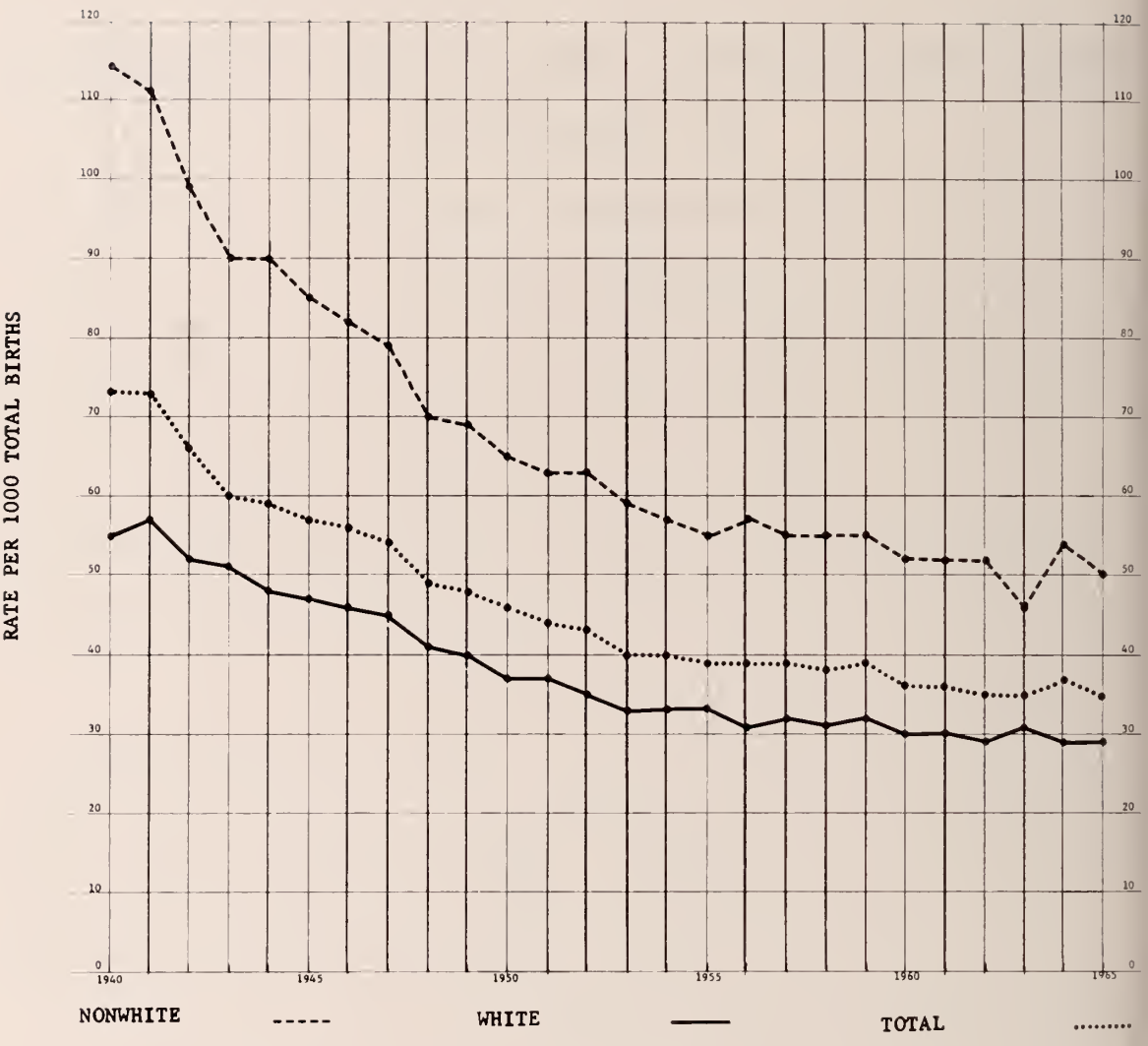
Maternity and Infant Care Program

The new Maternity and Infant Care (MIC) program should contribute toward a solution of the disproportionately high PNMR of the nonwhite race in Florida. This program was authorized through a grant from the Congress under Section 531, Part 4 of Title V of the Social Security Act. The legislation authorizes appropriation of



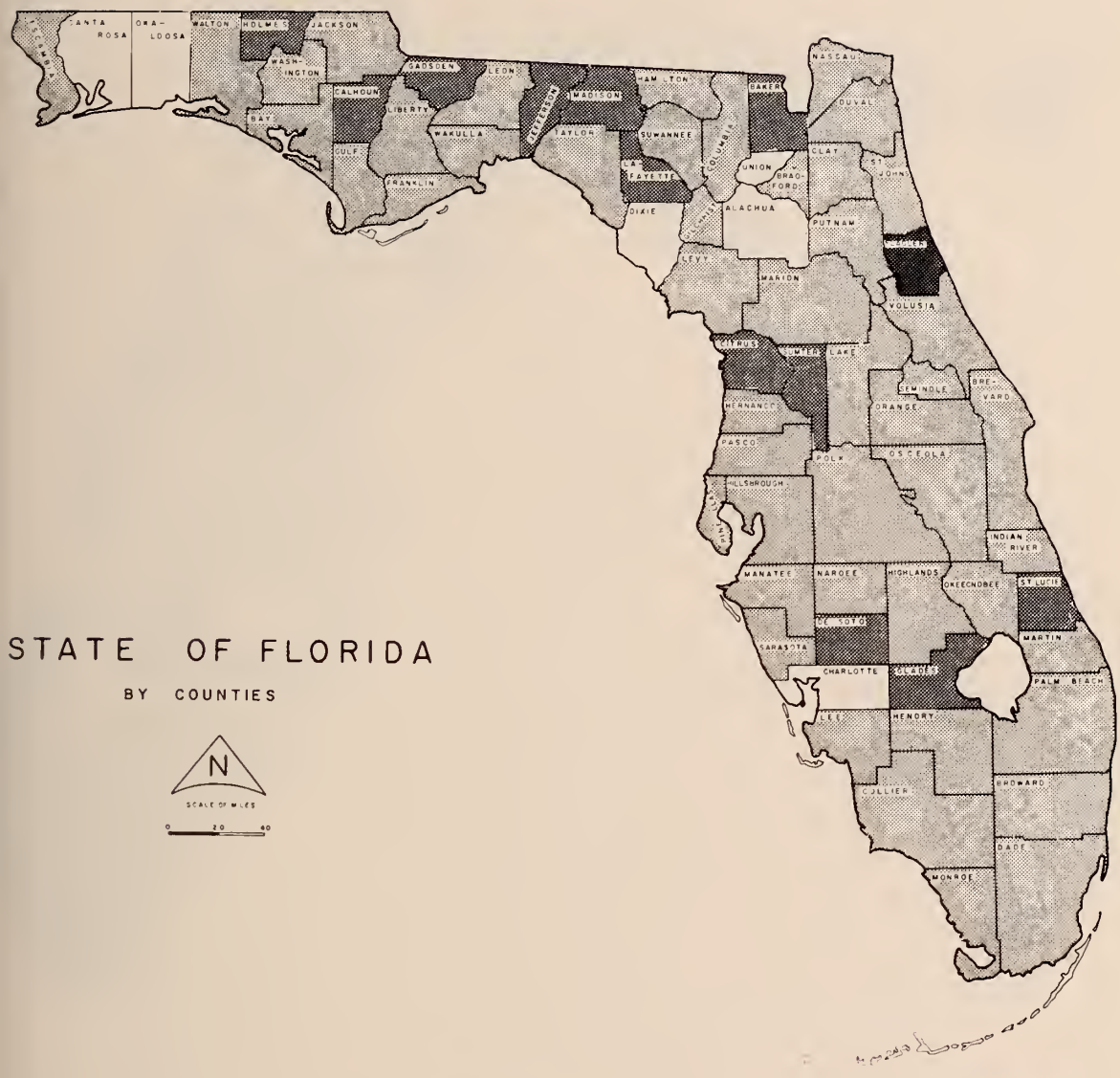
NEONATAL DEATHS (UNDER 28 DAYS OLD) PER 1000 LIVE BIRTHS
FOR FLORIDA AND UNITED STATES, 1940-1965

Fig. 1



RESIDENT PERINATAL MORTALITY (FETAL DEATHS PLUS INFANT DEATHS UNDER 28 DAYS OLD) PER 1000 TOTAL BIRTHS (LIVE BIRTHS PLUS FETAL DEATHS) , BY RACE, FLORIDA, 1940-1965

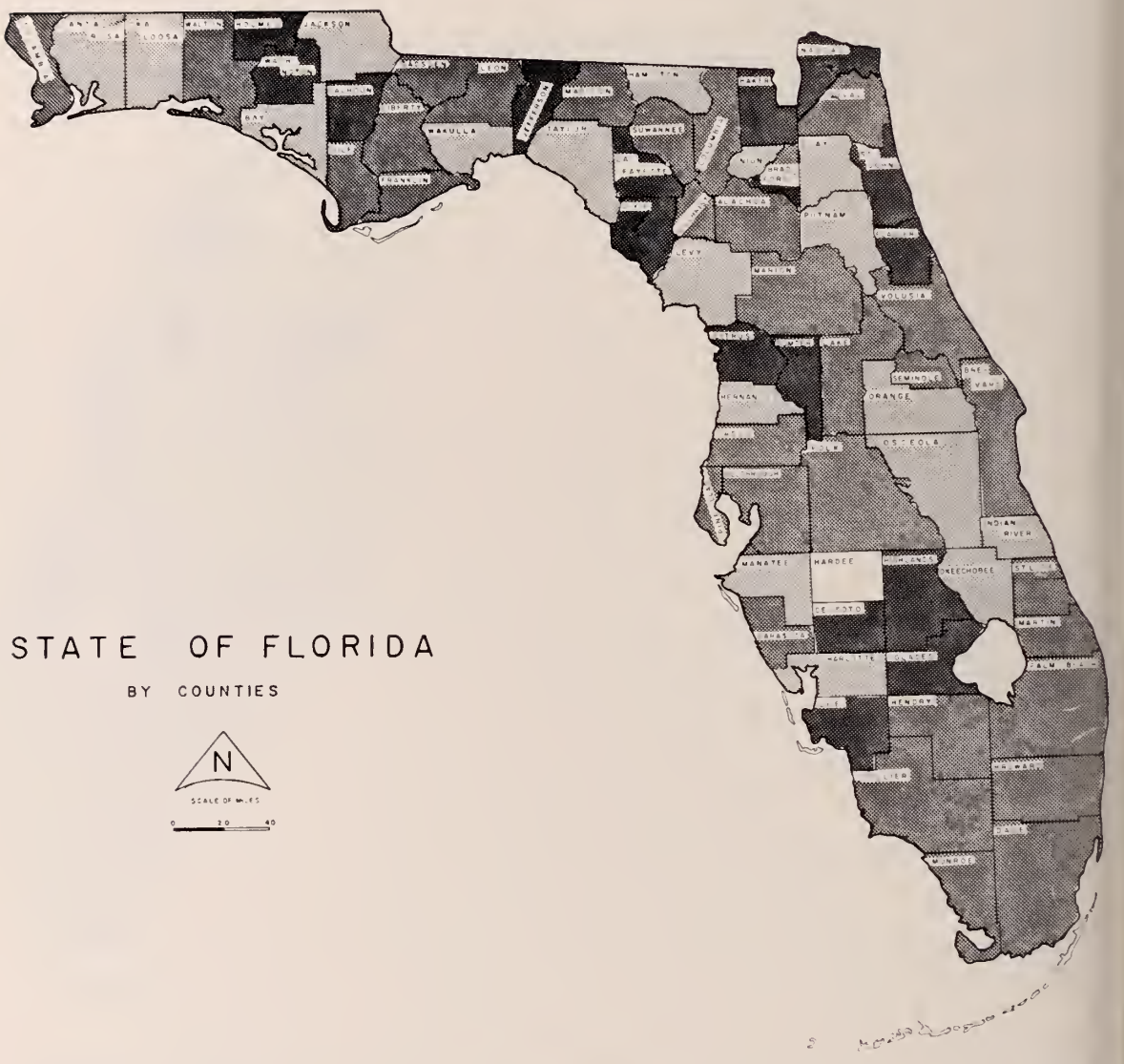
Fig. 2



TOTAL (WHITE AND NON-WHITE) PERINATAL DEATH RATE 1960-1964

FLORIDA AVERAGE 35.6

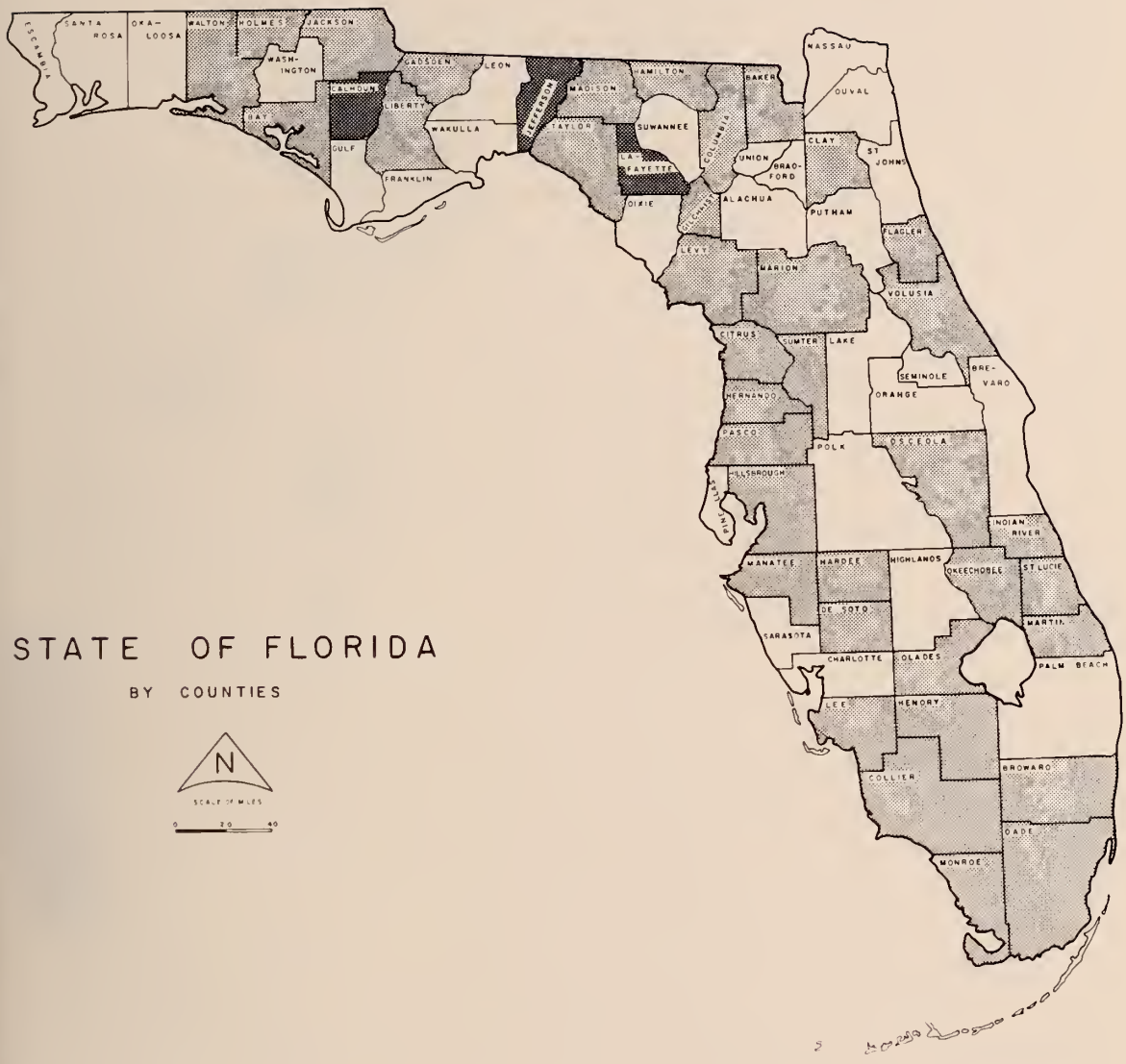
Fig. 3



NON-WHITE 5 YEAR PERINATAL DEATH RATE # PER 1000 BIRTHS

(INCLUDING STILLBIRTHS) FLORIDA AVERAGE 51.3

Fig. 4



0 - 29.9 RATE (#27)

30 - 44.9 RATE (#37)

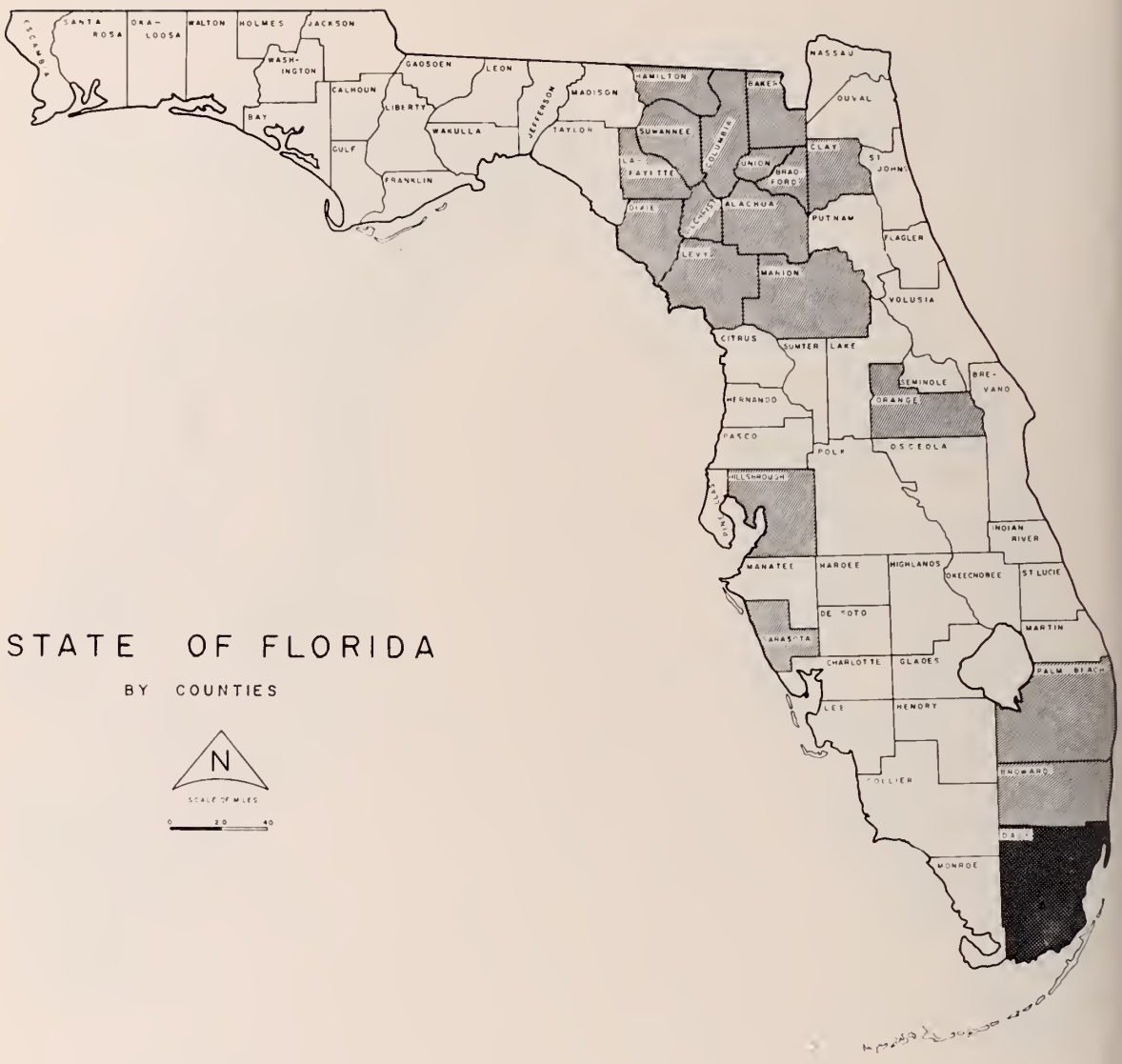
45 - 59.9 RATE (#3)

60 - RATE (#0)

WHITE 5 YEAR PERINATAL DEATH RATE # PER 1000 BIRTHS (INCLUDING STILLBIRTHS)

FLORIDA AVERAGE 29.9 (WHITE)

Fig. 5



Counties that have presented written request for grants

County with M.I.C. Project

MATERNITY AND INFANT CARE PROJECTS

Fig. 6

federal funds to all the states in an amount of $30,000,000 per year through 1968. The program is aimed toward reducing perinatal mortality and morbidity. This objective is to be accomplished by upgrading medical care for the "high-risk" indigent pregnant woman and her offspring. Figure six depicts those counties in Florida now known to have MIC projects awarded them. Additional counties may already be involved. It is noteworthy that only two of the 16 counties which had a nonwhite PNMR over 60 have acquired MIC grants.

Other possible sources of federal aid in solving the high PNMR problem in Florida are available under Title V of the Social Security Act and Title XIX* of the Medicare Law. Further information relative to such grants may be obtained by writing to John T. Leslie, M.D., Regional Medical Director, Children's Bureau, 50 Seventh St., N. E., Atlanta, Ga. 30323; or to Wilson T. Sowder, M.D., State Health Officer, Florida State Board of Health, P.O. Box 210, Jacksonville, Fla. 32201.

*State must elect to participate.

Summary

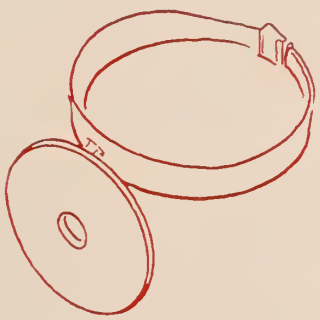
Florida's neonatal mortality rate has been consistently higher than the average rate for the United States over a 15 year period. The reason is the high perinatal mortality rate (PNMR) of the nonwhite race within the state. Maps are presented depicting the PNMR in the various counties.

The Maternity and Infant Care Project, authorized by the Congress in 1963, offers hope to "high-risk" indigent pregnant women and their offspring. Of 16 counties having nonwhite PNMRs higher than 60, only two are included in these grants thus far.

Under Title V of the Social Security Act and Title XIX of the Medicare Law, additional federal funds are available for medical aid to indigent maternity and infant patients.

Illustrations prepared by Barbara M. Whatley, Illustrator, Dade County Department of Public Health, Miami.

Dr. Antell, 1350 N.W. Fourteenth Street, Miami 33125.



Endocrine Effects Of Central Nervous System Lesions

LAWRENCE KAHANA, M.D., SHIRLEY KAHANA, M.D. and HARRY McPHERSON, M.D.

From studies of the endocrine effects of electrolytic lesions in the central nervous system, especially in the hypothalamus, has evolved a new basic science—neuroendocrinology. If one reviews the abstracts of the Endocrine Society meetings of the past 10 years, he is increasingly impressed by the diversity and credibility of this area of endocrine research. Two textbooks of neuroendocrinology are in press. A new journal entitled "Neuroendocrinology" has recently started publication. In brief, the field of experimental neuroendocrinology has blossomed forth with great vigor.

In contrast, the field of clinical neuroendocrinology has been slow in evolving. Relatively few systematic studies have been published. Yet there are reasons to believe that a wealth of poorly understood disease is to be clarified from studies in this area. Such diverse clinical states as irregular periods in nervous or obese girls, Grave's disease, Cushing's disease, anorexia nervosa, obesity, peptic ulcer disease, even hypertension may indeed turn out to be diseases of the neuroendocrine system. Today, however, impressions such as these belong solely in the realm of provocative speculation.

There is also a realm of reality. Here we have begun to factor out specific endocrine disturbances due to various types of brain lesions. Such abnormalities of function may occur in patients with tumors, trauma or vascular lesions of the brain. In these cases, because the precise extent of brain damage is difficult to define, adequate anatomic-physiological correlations of the exact portion of the brain responsible for the particular endocrine disturbances have not yet been possible. We are in the gross descriptive phase of this clinical discipline. As clinicians, this is all the more stimulating; as scientists, all the more frustrating.

We have observed a variety of extrasellar intracranial lesions which may produce endocrine effects despite the fact that the pituitary is not directly affected. The region of the brain adjacent to the sella turcica, including the hypothalamus, is the area most likely to be involved when endocrine manifestations are present. Lesions, however, remote from the hypothalamus, may have important endocrine functions. Similarly, the type of pathology is varied and includes almost every type of lesion that may occur in the central nervous system.

Table 1 illustrates the various types of lesions associated with endocrine effects. Table 2 illustrates the type of endocrine effects seen in one series of cases.[1] It is apparent that disturbances of sexual function are by far the most common.

Table 1.—Type of Pathologic Lesions Associated with Endocrine Effects

A. Vascular Malformations
   1. Aneurysms of the Internal Carotid Artery
   2. Arteriovenous Anomalies
   3. Angioma

B. Internal Hydrocephalus

C. Intracranial Tumors
   1. Third Ventricle Tumor
   2. Glioma of Optic Chiasm
   3. Hamartoma
   4. Extrasellar Craniopharyngioma
   5. Pinealoma
   6. Others

D. Trauma
   1. Acute Epidural and Subdural Hematomas
   2. Direct Trauma to the Hypothalamus
   3. Post-Traumatic Chronic Brain Syndrome

E. Miscellaneous
   1. Mucocele of Sphenoid Sinus
   2. Sarcoidosis
   3. Demyelinating Diseases
   4. Generalized Cerebral Atrophy
   5. Temporal Lobe Epilepsy
   6. Infections
   7. Encephalomalacia, Focal

Read before the Florida Medical Association, Ninety-Second Annual Meeting, Hollywood, May 13, 1966.

Table 2.—Type of Endocrine Manifestations in Intracranial Extrasellar Lesions

Case No.	Type of Lesion	Age	Sex	FSH	TSH	ACTH	ADH
1	Aneurysm	25	F	Galactorrhea Amenorrhea With Normal Urinary FSH	?↓	?↓	N
2	Aneurysm	59	F	↓	?↓	↓	N
3	3rd Vent. Tumor	23	F	↓	N	N	N
4	3rd Vent. Tumor	48	F	↓	↓	?↓	
5	3rd Vent. Tumor	28	M	↓	↓	↓	↓
6	3rd Vent. Tumor	24	M	↓	↓	N	↓
7	Int. Hydro.	17	F	↓	N	N	N
8	Int. Hydro.	17	F	↓	N	N	N
9	Int. Hydro.	25	F	↓	N	N	N
10	Int. Hydro.	14	F	Precocious Pubarche and Thelarche Delay Menarche Normal Urinary FSH			
11	Glioma of Optic Chiasm	17	F	↓	↓	↓	↓
12	A-V Anomaly of L. Cerebrum	11	F	↓	↓	↓	N
13	Meningioma	37	F	↓	N	N	N
14	Mucocele of Sphenoid Sinus	32	F	Amenorrhea With Normal Urinary FSH	N	N	N
	Number Abnormal			14	8	6	4

↓ = Impaired
?↓ = ? Impaired
N = Normal

Disturbances of thyroid and adrenal function, consequent to alteration of TSH and ACTH release, are seen with a lesser degree of frequency. Any combination, however, may occur. Recently, we have been able to document two instances of impaired growth hormone function as a result of extrasellar intracranial lesions.[2]

The frequency of impaired function appears to be related inversely to survival significance. For example, FSH is of least immediate survival importance and is most commonly impaired, while ACTH, which is of most survival importance, is least frequently impaired. The frequency of growth hormone disturbance is unknown. It is perhaps surprising that ADH disturbances were observed with the least degree of frequency, since it is known that the primary area of synthesis and release is actually located in the hypothalamus.

The type of disturbance observed may be one of deficiency or excess or of fine regulation—that is, disturbance of feedback. The degree of disturbance varies considerably. It is important to note that whereas many of the endocrine effects are occult, they may become clinically significant under stress. This change is most likely to occur when the underlying brain lesion necessitates neurosurgical intervention. Under these circumstances, impaired endocrine function may result in inadequate response to surgical stress. In this regard, ACTH function is of particular importance, and either evaluation of adrenal function or the administration of adrenal steroids in adequate dosage should be considered in any neurosurgical case involving areas adjacent to the hypothalamus, or in any extensive brain lesions. Failure to do so may have disastrous consequences. We have seen a number of postoperative neurosurgical cases with hypotension and hyponatremia associated with excessive urinary sodium loss. These have failed to be corrected readily with increased sodium intake and fluid limitation, but have been corrected promptly with replacement doses of hydrocortisone.

While, at the moment, occult disturbances of growth hormone function have not yet been defined, it is interesting to speculate that such alterations could result in abnormalities of blood sugar regulation as well as other metabolic disturbances. Should proof of this thesis be forthcoming, the changes noted could play an important role in the management of the postoperative course of neurosurgical cases.

Thus these lesions and inter-relationships are of considerable clinical significance. Awareness of the existence of endocrine effects of brain lesions should alert both the neurologist and the neurosurgeon to look for endocrine changes. Similarly, the endocrinologist, the general practitioner, the internist and the pediatrician should search for brain lesions in patients presenting with endocrine disturbances. This dual responsibility is illustrated by the data in table 2. In the 14 cases shown there, five presented as endocrine problems and nine presented primarily as neurological problems. Data such as these give strong support to the thesis that careful study of the hypothalamic area in such instances is mandatory. Skull x-rays alone, without arteriograms or air studies, are frequently inadequate for this purpose and indeed may be misleading in two ways: (1) Aneurysms may masquerade as intrasellar pituitary tumors, and if mistaken for such, may lead to inappropriate surgery or x-ray therapy. (2) In patients with hypopituitarism, a negative skull series alone does not rule out the presence of etiologically significant extrasellar lesions.

For example, a 17 year old white girl was seen for shortness of stature and failure to undergo pubescence. Growth had been normal until age eight, when she seemed to stop growing. She had polydipsia and polyuria. Studies proved impaired FSH function and diabetes insipidus. No evidence of neurologic disease was found. Several months later, early optic atrophy was noted. Repeat neurological studies including a pneumoencephalogram all gave negative results. Visual impairment was progressive and eventual neurosurgical exploration revealed a glioma of the optic chiasm which responded quite well to x-ray therapy.

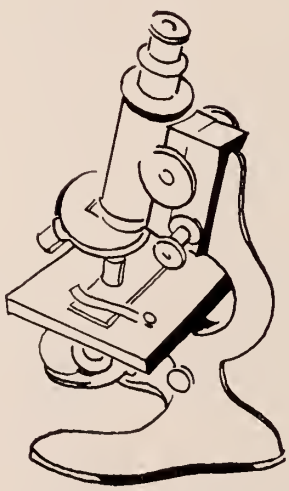
Summary

Study of experimental neuroendocrinology should stimulate increased awareness of the clinical implications of brain lesions, functional and organic, as causes of endocrine disturbance. Proper therapy will require close cooperation between the neurologists, neurosurgeons and endocrinologists.

References

1. Kahana, L., et al.: Endocrine Manifestations of Intracranial Extrasellar Lesions, J. Clin. Endocrinol. 22:304 (June) 1962.
2. Kahana, L.; Kahana, S., and McPherson, H.: "Endocrine Manifestations of Intracranial Extrasellar Lesions," a chapter to be published in An Introduction to Clinical Neuroendocrinology, edited by E. Bajusz (S. Karger, Basel/New York 1966).
3. Fernandez, A., et al.: Human Growth Hormone Functions in Patients with Extrasellar Intracranial Lesions. To be published.

▶ Dr. Kahana, One Davis Boulevard, Tampa 33606.



Diuretic Effects of Triamterene Combined With Hydrochlorothiazide

GIUSEPPE BELLUCCIA, M.D. and LAWRENCE KAHANA, M.D.

Triamterene is a potent natruretic, chloruretic, and diuretic agent.[5,7] When it is used with thiazides, its efficiency is increased.[2,7] In an earlier study at Tampa General Hospital, using triamterene alone in hospitalized patients, and together with hydrochlorothiazide (50 mg. to 200 mg. of each daily) in outpatients, we found that hyperkalemia occurred less frequently when triamterene was used in combination. We continued our studies with various dosage ratios of the two drugs, and the following is a report of our experiences with a fixed combination of 50 mg. of triamterene and 25 mg. of hydrochlorothiazide (Dyazide).

Patients and Methods

From the outpatient clinic of the hospital we selected 16 edematous patients, nine men and seven women from 16 to 77 years of age. The causes of edema in these patients were congestive heart failure due to arteriosclerotic heart disease (10); nephrosis (3); cor pulmonale with failure on the right side (1); venous insufficiency (1), and hypoalbuminemia (1). The duration of the edema ranged from two months to 10 years. Fourteen patients had been taking oral diuretics, many with supplemental mercurial injection; but only one, a patient who had been taking triamterene, had experienced satisfactory results. All the patients selected were normotensive.

Dr. Belluccia is Senior Medical Resident, Division of Internal Medicine, Tampa General Hospital.
Dr. Kahana is Clinical Chief, Division of Internal Medicine, Tampa General Hospital.
Dyazide was supplied by Smith Kline & French Laboratories, Philadelphia, Pa.

Previous therapy was discontinued for at least 24 hours and base line laboratory studies (complete blood counts, urinalyses, serum glutamic-oxaloacetic transaminase, serum glutamic-pyruvic transaminase, alkaline phosphatase, blood urea nitrogen, serum potassium and sodium) were obtained. These studies were repeated four weeks later at the end of the study. The dosage of the triamterene-hydrochlorothiazide combination was individualized according to the severity of the edema; it ranged from one capsule (50 mg. of triamterene plus 25 mg. of hydrochlorothiazide) every other day to two capsules twice a day. The patients returned once a week for checks upon their weight, degree of edema, blood pressure in the standing and supine position and side effects.

Results

Details on the clinical response and results of the laboratory studies are presented in table 1. Thirteen patients completed the four week study; one failed to return for follow-up and two were dropped from the group. Of the 13 patients who completed the study, 12 lost between one and 48 pounds. Compared to their response to previous therapy, seven patients had an excellent or good response (weight loss over five pounds and good clinical improvement); four had a fair response (weight loss less than five pounds and only modest clinical improvement), and two had a poor response (little or no weight loss and no clinical improvement).

One of the patients who had previously needed frequent mercurial diuretics along with chlorothiazide was well maintained on the triamterene-

Table 1.—Dyazide Effects in Sixteen Outpatients for Four Week Study Periods (Triamterene 50 mg. and Hydrochlorothiazide 25 mg.)

Case No.	Diagnosis	Age	Sex	Weight Initial	Weight Final	Dyazide Dose Capsules/24 hr.	Side Effects	Clinical Response	Serum K mEq./L Initial	Serum K mEq./L Final	BUN (mg. %) Initial	BUN (mg. %) Final	Remarks
1	Nephrotic syndrome	59	M	166½	148	2	Anorexia Weakness	Excellent	5.3	4.3	10	40	No follow-up
2	Nephrotic syndrome	16	M	190	142	1-4	None	Excellent	5.0	3.9	44	14	
3	Nephrotic syndrome	34	M	152	136	1-2	Headache	Good	4.1	4.8	25	21	
4	Venous insufficiency	65	F	169	167½	1-2	None	Poor	5.2	6.1	18	19	
5	Cor pulmonale	64	M	177	174½	2	None	Fair	5.5	4.7	28	32	
6	*A.S.H.D. +D.M.	59	M	182	176	1 per 3 days to 1 per day	Fatigue Nausea Anorexia	Good	4.9	4.3	18	16	
7	A.S.H.D. ++C.H.F.	53	F	196	186	1-2	None	Good	3.5	4.0	13	13	
8	C.H.F.	75	M	113½	114	1	None	Fair	5.3	4.6	32	27	No weight loss but edema cleared
9	A.S.H.D.	75	F	134	131	2	None	Fair	3.6	4.1	18	29	No mercurials required while on Dyazide. Pyelonephritis developed
10	A.S.H.D. C.H.F.	67	M	160	150½	1 per 2 days	None	Excellent	4.6	4.5	23	28	
11	A.S.H.D. C.H.F. D.M.	77	F	264	259	2	None	Good	3.8	—	18	—	No follow-up
12	A.S.H.D. C.H.F.	74	F	120½	119½	1-2	None	Poor	4.5	4.6	19	32	Transient BUN elevation
13	A.S.H.D. CHF Ca. prostate	75	M	146	136	1-2	Nausea Vomiting	Good	4.6	4.7	40	56	Transient BUN elevation
14	C.H.F.	53	M	198½	194	1-3	None	Fair	4.3	3.7	14	14	
15	Hypoalbuminemia	75	F	110	104	1-2	Nausea Vomiting due to hiatal hernia	Good	3.8	—	13	14	Incomplete study (2 weeks only)
16	A.S.H.D.	58	F	179	183	2	Vomiting	Poor	7.6	6.5	136	126	No evaluation, progressive renal failure

*Arteriosclerotic Heart Disease +Diabetes Mellitus ++Congestive Heart Failure

hydrochlorothiazide combination alone. Two other patients who had an excellent response have been continued on the combination.

Side Effects

As was mentioned, two patients were dropped from the study. One patient had nausea and vomiting due to a hiatal hernia and the triamterene-hydrochlorothiazide combination was discontinued after two weeks; the other, who had been severely ill with progressive renal disease, required hospitalization and the diuretic therapy was discontinued. Considering the poor prognosis, it is doubtful that the administration of the triamterene-hydrochlorothiazide combination contributed to the deterioration of the latter patient's condition.

Two patients complained of nausea and vomiting; in one, the administration of digitalis was a contributing factor. Two patients complained of fatigue and weakness, but continued treatment. The BUN rose transiently in two patients, from 19 to 32 and from 40 to 56. In a third patient, the BUN rose from 18 to 29 and remained elevated; pyelonephritis developed during the study. In a fourth patient, the BUN rose from 10 to 40; he failed to return for follow-up, and so we were unable to determine whether the BUN returned to prestudy levels. There were no significant changes in the other laboratory studies or in the blood pressure readings in the standing or supine position.

Discussion

Triamterene possesses an aldosterone antagonistic activity which is exerted mainly at the distal portion of the renal tubule.[4,6] It appears to have a direct effect on the distal tubule, interfering with the active sodium exchange mechanism. The diuretic effect of triamterene is potentiated by hydrochlorothiazide[7,8] and the combination of the two drugs reduces potassium excretion, thereby eliminating the need for potassium supplements.

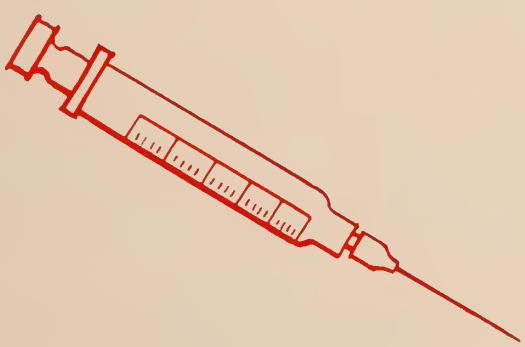
The potassium-sparing property is an important safety consideration, since gastrointestinal lesions have been associated with the use of potassium supplements.[3] The combination of triamterene and hydrochlorothiazide seems to warrant additional study, particularly if the hypokalemic or hyperkalemic effects of the individual components can be decreased or eliminated.

Summary

A fixed combination of 50 mg. of triamterene and 25 mg. of hydrochlorothiazide was used for a period of four weeks to treat edema associated with various conditions in 16 outpatients. The results confirm previous reports that this combination provides potent diuretic effects without altering serum potassium levels. Other than an occasional mild transient elevation of BUN levels, no significant side effects occurred. By eliminating the need for potassium supplements, the combination of triamterene and hydrochlorothiazides appears to offer a significant advantage over other diuretics.

References are available from the authors upon request.

Dr. Kahana, One Davis Boulevard, Tampa 33606.



Encyclopaedia Britannica available at reduced price!

Arrangements have been made with the Encyclopaedia Britannica for members of the Florida Medical Association to obtain the latest 24 volume Heirloom edition* on a group basis at a reduced price plus several other items at no extra cost. These extras, from which you may choose, include the 15 volume Britannica Junior Encyclopaedia, or Webster's Third New International Dictionary, the Britannica Atlas, the Britannica World Globe, and Home Study Guides or their College Preparatory Series.

In addition to this, along with reduced price, Encyclopaedia Britannica is also extending its own "book club" plan with an important difference. It is called the Book a Month Payment Plan. You receive all 24 volumes at once, yet pay for just one book each month.

If you are interested in this group cooperative plan, mail this coupon TODAY.

*With custom designed bookcase

Encyclopaedia Britannica Dept.
425 N. Michigan Avenue, Chicago, Illinois 60611

Gentlemen: Please send me, free and without obligation, your colorful Preview Booklet which pictures and describes the latest edition of Encyclopaedia Britannica in full detail — and complete information on how I may obtain this magnificent set, direct from the publisher, through your exciting offer.

Name_____
(please print)

Street Address_____

City_____ County_____

State_____ Zip Code_____

Signature_____
(Valid only with your full signature here)

Fla. Med. Assn. GC-101-M1

(Paid Advertisement)



President's Page

Legislation – 1967

Within a month the regular biennial session of the Florida legislature will convene. There will be many new legislators in both the House and Senate because of recent reapportionment. Because of this turnover since the 1965 legislative session, it is more important than ever that these new legislators be informed of legislation relating to public health so that proper and expeditious action can be taken in introducing and passing laws which produce the desired results in their effect on the health and welfare of our citizens who are our patients.

Your Committee on State Legislation, under the able, energetic and efficient chairmanship of Dr. Edward Haskell, has been extraordinarily busy in formulating our state legislative program, in explaining the proposed bills to our membership and in having the bills drawn up in proper legal form for introduction. For the first time in modern times we also have physician members in the House and Senate. These duly elected physician legislators are ready and willing to carry the ball for us and to explain the reasons for and purposes of legislation in which the FMA is vitally interested. Our legislative program was thoroughly presented and explained to our county society presidents and secretaries and other interested members at the recent conference in Orlando in late January.

I ask that each of us acquaint himself with our legislative program concerning abortions, a medical examiner system, involuntary hospitalization of the mentally or emotionally ill, consent for autopsy and implementation of Title XIX. In this way we can intelligently discuss the bills with our own senators and representatives and give proper advice and explanation to engender their support and cooperation.

We should also plan for visitations to Tallahassee during the session, not only to show our personal interest as physicians and citizens by observing our legislators in action and person to person contact, but also to help man the medical aid station established by the FMA for our lawmakers. The stage is set for successful action as never before. It's up to each of us. My congratulations to Drs. Von Thron and Haskell and our FMA staff for their splendid work and preparations.

George S. Palmer



Editorial

The Seven Pillars of Sanity

In a world seemingly gone mad with power, money and political desperation, one wonders what has happened to sanity, and what actually keeps societies from collapsing. Fortunately, there are always a few plaintive voices crying in the wilderness.

Mankind must constantly make use of such constructive pillars as the following: Wisdom, Compassion, Understanding, Forgiveness, Simplicity, Patience and Humor.

Wisdom cries its wares in the market place, and no one listens; for wisdom is the culmination of a lifetime of experience and contemplation-illumination. It is the "heavenly light for man."

Compassion is the distillate of human suffering, and the willingness to share the painful triumphs; the desire and hope for the individual's greatest potentialities in equality and opportunity.

Understanding is the tender thread weaving in and out of our years, supplementing what has already been learned to what needs to be learned about man and humanity. It is the "unlearning-learning" process-in-continuum, assuring us clarity and succinctness concerning human relationships and our own peculiar identities.

Forgiveness is the delicate bridge of communication that allows children and parents, husband and wife, neighbor and stranger, to live peacefully together, appreciating the similarities and differences that make the human family. Human balances and controls are precariously camouflaged in modern societies.

Simplicity is the essential needed for restoring order out of chaos, so that each human urge and desire fulfill reasonable and equitable criteria for accomplishment without expansive rhetoric.

Patience is that rare quality of achievement emerging from a long apprenticeship to humility, service, selflessness and sincere altruism.

Humor, the last pillar, is the leavening talent that allows tragedy to be diluted, ignorance to be levitated, bitterness to be seasoned, vulgarity to be pivoted and reality to be cushioned. It is the one pillar that finally makes the temple of sanity architecturally sound and subtly beautiful.

Man must not sit by indifferent or psychologically bewildered by events that seem beyond his comprehension and solution. Modern civilization is a deception-mirage that man is a thinking animal, aware of his responsibilities and ready to act judiciously. It is today a gross exaggeration, for most humans prefer the easy way of manipulating their lives, with minimum involvement in responsible management and lackadaisical laissez-faire mañanas.

Pascal, the great French philosopher-mathematician, saw man as ridiculous and grotesque, and elaborated upon his follies. Chekov, the great Russian writer, refused to teach or cure, knowing the frailties and foibles of the human race.

All of us, at times, become philosophers or poets in moments of anguish about the "human condition," pawns and victims of circumstances beyond our control. Often we reflect too lightly upon the pillars of sanity. Only master builders, visionary dreamers, optimistic realists, and impractical practicalists know what can be accomplished in their lifetime, and what must be done for future generations to bring about some semblance of unity and harmony before panic buttons put an end to all our strivings.

I. Leo Fishbein, M.D.
Miami Beach

New from Du Pont

Symmetrel®

(Amantadine HCl)

The first oral chemical virostat for the prevention of influenza A



Influenza virus
Protein shell enclosing the core of nucleic acid (RNA)—artist's representation

The incidence of influenza A_2. In this country, where influenza is one of the leading causes of morbidity, influenza A_2 (Asian) continues to be a serious medical problem. In 1957 influenza A_2 was responsible for approximately 40,000 excess deaths in a three-month period. Since that year the most prevalent influenza virus has been A_2 (Asian).

What is Symmetrel®? "Symmetrel" (amantadine HCl) is a new synthetic chemical which acts as a molecular barrier to virus penetration. It provides for the first time specific oral medication for the prevention of respiratory infections caused by influenza A_2 (Asian) viruses—an entirely new approach in preventive medicine.

For prescribing information, see last page of this presenta

What Symmetrel® (amantadine HCl) means to you

...the first and only oral chemical agent to prevent influenza A_2 (Asian).

...not a vaccine or antibiotic, but a new synthetic chemical unrelated to any other chemotherapeutic agent.

...unique mode of action: prevents virus penetration of the host cell without affecting vital cell functions.

...specifically active against all influenza A_2 viruses tested to date.

...not indicated for the prevention of influenzal or respiratory illness other than influenza A_2 or for the treatment of established disease.

...does not interfere with normal antibody response; acts in concert with pre-existing antibody.

What Symmetrel® means to your patient

...possible immediate influenza A_2 protection when taken following suspected contact.

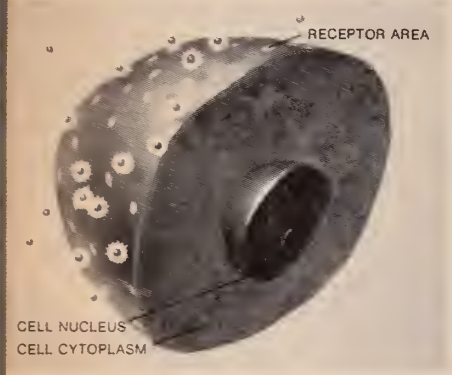
...may be particularly useful during outbreaks or epidemics and for high-risk patients in whom the occurrence of influenza A_2 is especially hazardous.

...a high degree of safety in clinical use.

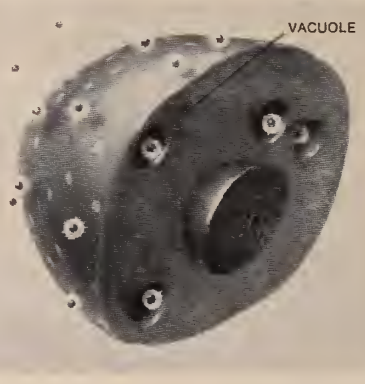
...simple once daily or b.i.d. dosage.

The mode of action of Symmetrel®

How the influenza virus invades and destroys the untreated cell



1 Viruses outside the cell attach themselves to specific cell receptor areas

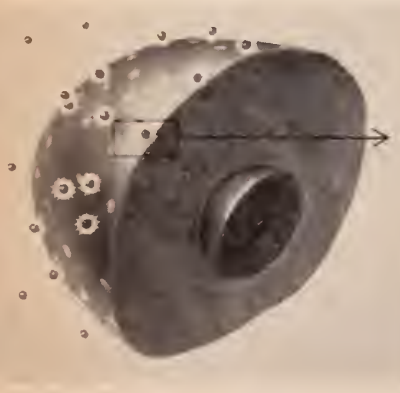


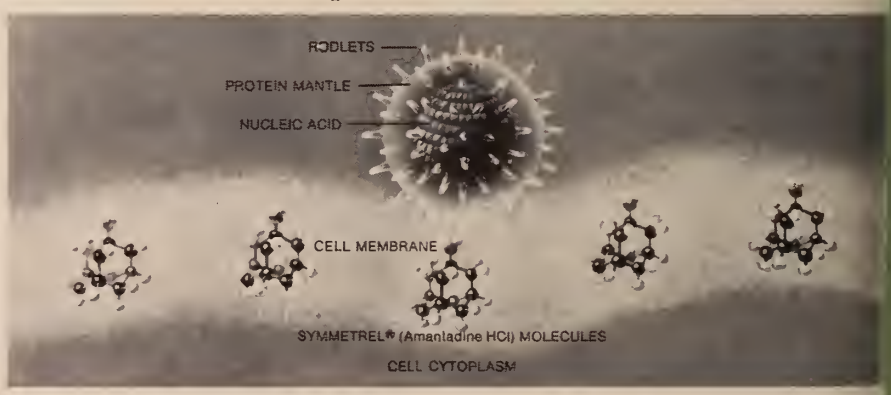
2 The virus is incorporated into a vacuole within the cell. From this vacuole the virus nucleic acid passes into the cell cytoplasm



3 The virus nucleic acid then directs the cell to produce both new virus nucleic acid and virus protein coat material which aggregate to form new virus particles. This process leads to the release of new virus particles and eventual destruction of the cell

How Symmetrel® (Amantadine HCl) prevents virus invasion[1]





Our current knowledge leads us to believe "Symmetrel" acts as a molecular barrier to influenza virus penetration. Shown here in a greatly enlarged section, "Symmetrel"—located at the cellular membrane—effectively prevents (blocks) virus penetration. Thus, "Symmetrel" does not directly destroy the virus particle but acting as a virostat prevents the cycle of virus penetration, virus replication, and cell destruction that is characteristic of virus invasion of animal cells (tissue). *Artist's conception based on current scientific knowledge.*

1. "Mode of Action of the Antiviral Activity of Amantadine in Tissue Culture", Hoffmann, C. E.; Neumayer, E. M.; Haff, R. F.; and Goldsby, R. A., Journal of Bacteriology *90*,623 (1965).

Safety of Symmetrel® Confirmed. When used as indicated, is generally well tolerated. No kidney, liver, bone marrow, or hematological disturbances have been observed.

Prescribing Information

Indications: "Symmetrel" is indicated for the prevention (prophylaxis) of influenza A_2 in persons of all age groups. Early use is recommended, preferably before or as soon as possible after actual or suspected contact with individuals suffering from influenza A_2. "Symmetrel" should especially be considered for high influenza-risk patient groups such as those suffering from chronic debilitating diseases and elderly persons.

Contraindications: Not indicated for the prevention of influenzal or respiratory illness other than influenza A_2 or for the treatment of established disease.

Warnings: Administration to patients with central nervous system disease, particularly geriatric patients with cerebral arteriosclerosis, and patients with a history of epilepsy or other "seizures," requires strict observation for possible untoward effects (see Adverse Reactions). Patients taking psychopharmacologic drugs, central nervous system stimulants, or alcoholic beverages should be observed for possible evidence of intolerance. Those patients who experience central nervous system effects or blurring of vision should be cautioned against driving or working in situations where alertness is important.

No teratogenic effects have been seen in reproductive studies in rats and rabbits. Studies in pregnant women have, however, not been done and use of this drug in women of childbearing age should be undertaken only after weighing the possible risks to the fetus against benefit to the pregnant patient. It should not be administered to nursing mothers since it is not known whether the drug is secreted in the milk.

Precautions: Ineffective against bacterial infections. Patients should be observed for idiosyncratic reactions as with all new drugs. Geriatric patients with pre-existing serious medical illnesses with mental or physical deterioration should be followed carefully medically while taking "Symmetrel." (See Adverse Reactions.)

Adverse Reactions: With higher than indicated doses manifestations of central nervous system effects such as nervousness, insomnia, dizziness, lightheadedness, drunken feeling, slurred speech, ataxia, inability to concentrate and some psychic reactions including depression and feelings of detachment were seen. Occasional blurred vision was reported at higher doses. Some of the milder and less pronounced symptoms above have been reported in a small number of patients taking the recommended dosage of 200 mg per day. Those were mostly transient and disappeared with continued administration of the drug. Some geriatric patients developed paranoid or hallucinatory behavior and became unmanageable while taking 200 mg daily. Medically unselected seriously deteriorated geriatric patients showed poor clinical tolerance after several weeks of daily dosing with 200 mg per day. One elderly patient with a history of prior cerebrovascular accident developed visual hallucinations and grand-mal convulsions while on drug at 800 mg per day. Some cases of dry mouth, gastrointestinal upset and skin rash and rarely, tremors, anorexia, pollakiuria, and nocturia have been also reported.

Safety: When used as indicated, is generally well tolerated. No kidney, liver, bone marrow, or hematological disturbances have been observed.

Dosage: *Adults:* Two 100 mg capsules (or 4 teaspoonfuls of syrup) as a single daily dose or the daily dose may be divided into one capsule of 100 mg (or 2 teaspoonfuls of syrup) twice a day.

Children: 1 yr.—9 yrs. of age: Calculate total daily dose on the basis of 2 mg to 4 mg per pound of body weight per day (but not to exceed 150 mg per day). Daily dose, given as the syrup, should be given in 2 or 3 equal portions.

9 yrs.—12 yrs. of age: Total daily dose 200 mg given as one capsule of 100 mg (or 2 teaspoonfuls of syrup) twice a day.

How Supplied: *Capsules:* Bottles of 100. Each red, gelatin capsule contains 100 mg amantadine HCl.
Syrup: Bottles of 1 pint. Each 5 ml (1 teaspoonful) contains 50 mg amantadine HCl.

DUPONT

Symmetrel®

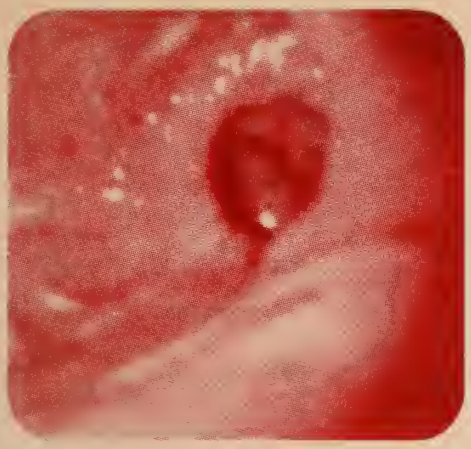
(Amantadine HCl)

A molecular barrier to virus penetration



NEW EVIDENCE:

Pro-Banthīne® (propantheline bromide)
gives positive, selective benefits in gastrointestinal disorders.



Intragastric photograph of pyloric region showing complete relaxation of pyloric sphincter with 6 mg. of Pro-Banthine intravenously.

AN IMPORTANT PROBLEM in managing gastrointestinal disorders has been the choice of an anticholinergic agent which will act positively and selectively on the gastrointestinal tract without extensive secondary effects.

Recent direct observations with the cinefibergastroscope and intragastric photography[1] visually confirm previous evidence that Pro-Banthine does, indeed, possess such selective activity.

Barowsky and his associates demonstrated that a minimal dose of 6 to 8 mg. of Pro-Banthine intravenously produced complete relaxation of gastric activity. Secondary effects were not significant.

By contrast, it required 0.8 mg. or double the usual dose of atropine intravenously to achieve similar gastric relaxation. Side effects of this dosage of the belladonna alkaloid were pronounced. Ventricular rates were as high as 150 per minute.

For positive, selective anticholinergic benefits Pro-Banthine is indicated in patients with peptic ulcer, gastritis, irritable colon and other forms of gastrointestinal hypermotility.

Dosage: The maximal tolerated dosage is usually the most effective. For most *adult* patients this will be four to six 15-mg. tablets daily in divided doses. In severe conditions as many as two tablets four to six times daily may be required. Pro-Banthine (brand of propantheline bromide) is supplied as tablets of 15 mg., as prolonged-acting tablets of 30 mg. and, for parenteral use, as serum-type ampuls of 30 mg. The parenteral dose should be adjusted to the patient's requirement and may be up to 30 mg. or more every six hours, intramuscularly or intravenously.

Contraindications: In glaucoma or severe cardiac disease.

Precautions: Since varying degrees of urinary hesitancy may occur in the elderly male with prostatic hypertrophy, this should be watched for in such patients until they have gained some experience with the drug.

Although never reported, theoretically a curare-like action may occur with possible loss of voluntary muscle control. Such patients should receive prompt and continuing artificial respiration until the drug effect has been exhausted.

Side Effects The more common side effects, in order of incidence, are xerostomia, mydriasis, hesitancy of urination and gastric fullness.

1. Barowsky, H.; Greene, L.; Bennett, R., and Buganza, G.: The Effect of Anticholinergic Drugs on Gastric Motility and Pyloric Function, Scientific Exhibit, Annual Convention of the American Medical Association, Chicago, Illinois, June 26-30, 1966.

SEARLE *Research in the Service of Medicine*

When the battle with bacteria is in the upper respiratory tract

Routes of invasion through the oral and nasal passages to the nasopharyngeal mucosa: artist's depiction of sagittal section of head in perspective.



consider Gantanol (sulfamethoxazole)



To rapidly help the patient win against upper respiratory infections

When the respiratory tract has been invaded, an antibacterial that can assure effective yet generally uncomplicated therapy is your first line of defense...an agent such as Gantanol (sulfamethoxazole), the wide-spectrum antibacterial from Roche.

Gantanol (sulfamethoxazole) is effective against common susceptible upper respiratory pathogens, both gram-positive and gram-negative. Acting at foci of bacterial invasion, Gantanol (sulfamethoxazole) promptly helps control most infections, yet usually presents few problems to patients. Dosage is convenient and provides a measure of economy.

Before prescribing, please consult complete product information, a summary of which follows:

Contraindicated in sulfonamide-sensitive patients, pregnant females at term, premature infants, or newborn infants during first three months of life.

Warnings: Use only after critical appraisal in patients with liver damage, renal damage, urinary obstruction or blood dyscrasias. If toxic or hypersensitivity reactions or blood dyscrasias occur, discontinue therapy. In intermittent or prolonged therapy, blood counts and liver and kidney function tests should be performed.

Precautions: Observe usual sulfonamide therapy precautions, including maintenance of an adequate fluid intake. Use with caution in patients with histories of allergies and/or asthma. Patients with impaired renal function should be followed closely since renal impairment may cause excessive drug accumulation. Occasional failures may occur due to resistant microorganisms. Not effective in virus or rickettsial infections.

Adverse reactions: Headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, skin rash, Stevens-Johnson syndrome, injection of the conjunctiva and sclera, petechiae, purpura, hematuria or crystalluria may occur, in which case the dosage should be decreased or the drug withdrawn.

Dosage: Adults—4 tablets initially, then 2 tablets b.i.d. or t.i.d. depending upon severity of infection. Children—1 tablet/20 lbs initially, followed by ½ tablet/20 lbs b.i.d.

How supplied: Tablets, 0.5 Gm, bottles of 50.

Roche Laboratories, Division of Hoffmann-La Roche Inc., Nutley, N. J. 07110

When there are bacterial invaders in the upper respiratory tract

Gantanol®
(sulfamethoxazole)

ROCHE



"Yes, Doctor, the pain is gone."

■ Despite introduction of synthetic substitutes, efficacy of 'Empirin' Compound with Codeine remains unchallenged.

'Empirin'® Compound with Codeine Phosphate gr. ½ No. 3

Each tablet contains: Codeine Phosphate gr. ½ (Warning—May be habit forming), Phenacetin gr. 2½, Aspirin gr. 3½, Caffeine gr. ½.

Keeps the Promise of Pain Relief

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N. Y.



Special Article

A Physician's Bible Study

The Triune God in the Old Testament

J. LAWTON SMITH, M.D.

The fact that God exists in three forms—God the Father, God the Son, and God the Holy Spirit—has been a stumbling block to the mind of many of God's chosen people. The watchword of Judaism—Deuteronomy 6:4, "Hear, O Israel: the Lord our God is one Lord"—has been cited as refuting this belief. Furthermore, the triune nature of God has been purported by some to be strictly a New Testament concept. The purpose of this paper is to document the triune nature of God using only scriptures that are from the Tenach, or Old Testament, and hence accepted by all true children of Israel as inspired words of God. New Testament scriptures are excluded, not because they are not equally inspired of God, but because it was thought that this approach would mean more both to the Jewish physician or scientist studying the matter for himself, and to the Christian interested in discussing this subject with his Hebrew friends.

With regards to Deuteronomy 6:4, the traditional Jewish interpretation of this verse as written in the Zohar is of interest: Why in the 'Sh'ma' (that is, the "Hear O Israel, the Lord, our God, the Lord is one") is the Lord mentioned three times? The answer to this question is given by the sages: "Because the first mention of the Lord (Adonoi) is God who is our Father. The second mention of 'Our God' (Elohaynu) is the Messiah, and the third mention of the Lord (Adonoi) is the 'Ruach Ha Kodesh' or the Holy Spirit. And these three are one."[1]

The Hebrew word used for God is "Elohim" which, interestingly enough, is a plural noun yet always used with a singular verb. Consider Genesis 1:26, "And God said, Let us make man in our image, after our likeness. . . ." Because of space limitations, God the Father will not be discussed here, for the Lord Jehovah, the God of Abraham, Isaac and Jacob, is known and revered by every true Jew. God the Son, the Messiah, Yeshua, is extensively dealt with in the Old Testament, and some selected prophetic scriptures dealing with the Son were previously cited.[2] This report, therefore, deals primarily with the third person of the Godhead—God the Holy Spirit—and hence Old Testament scriptures referring to the Spirit of God will be considered in more detail.

At the outset, the best picture of the Trinity that can be given was given us by the Lord Himself, in water. There are many similarities in introducing one unexposed to the concept of a triune God, and one unexposed to the triune nature of water. If one took an illiterate Eskimo into three rooms of a house, and showed him a boiling steam kettle on a stove in the first, a cool pitcher of water in the second and a large block of ice in the third, and let him examine each for himself to assess its attributes, one would find that the Eskimo might point out that the gas coming from the kettle was hot to touch, had no apparent weight and would blow a whistle, whereas the water in the pitcher was wet to touch, would run through his fingers and was pleasant to taste, while the ice was cold to touch, heavy to lift and could be held in the hand or cut into smaller pieces. One can imagine the reaction of this person when told that all three of these materials were of exactly the same composition—namely, H_2O. He would immediately snort that this concept was foolishness, that his senses had excluded the possibility that the three materials were really one thing, and his mind might well be closed to any further consideration of the matter. If one encountered a person with a truly open mind, however, it probably could be said that after a reasonable course of study his mind could grasp the triune nature of water without any intellectual misapprehension whatsoever. Accepting the fact that God the Father is recognized by the Hebrew, let us proceed to document the concept of the Trinity in the Old Testament, and then to a more detailed consideration of the Holy Spirit.

The Trinity in the Old Testament

In the prophet Isaiah (48:16) we read: "Come ye near unto me, hear ye this: I have not spoken in secret from the beginning; from the time that it was, there am I; *and now the Lord God, and his Spirit, hath sent me.*" It is evident that the speaker has differentiated the Lord God from His Spirit and furthermore, from Himself. It is therefore necessary to know who is speaking. Four verses earlier, the speaker identifies himself (Isa. 48:12-13), "Hearken unto me, O Jacob and Israel, my called: I am He; I am the first, I also am the last. Mine hand also hath laid the foundation of the earth, and my right hand hath spanned the heavens; when I call unto them, they stand up together." There is no doubt that the speaker is also God—and this is God the Son—the Lord Jesus Christ—speaking to His chosen people.

God the Son

Another example is reasonable at this point. In Proverbs 30:4 we read, "Who hath ascended up into heaven, or descended? Who hath gathered the wind in his fists? Who hath bound the waters in a garment? Who hath established all the ends of the earth? *What is his name, and what is his son's name,* if thou canst tell?" If there is any difficulty in identifying Jehovah as the answer to the questions asked in the earlier part of this verse, the fact is plainly stated in both Jeremiah 5:22 and Isaiah 40:12. Therefore, to anyone believing the Tenach, there can be no doubt that God does indeed have a Son. David acknowledged this in Psalm 2: 11-12, "Serve the Lord with fear and rejoice with trembling. *Kiss the Son,* lest he be angry, and ye perish from the way, when his wrath is kindled but a little. Blessed are all they that put their trust in him." Again, in the first verse of Psalm 110, David says, "*The Lord said unto my Lord,* Sit thou at my right hand, until I make thine enemies thy footstool." It is evident that the Lord is here speaking to someone else (note the different pronouns "my" and "thine" further confirming this point), and it is seen from further study of this Psalm that the "my Lord" of David is Yeshua, the Messiah of Israel.

God the Holy Spirit

God the Holy Spirit is portrayed in three major aspects in the Old Testament, showing His past, present, and future work. Some pertinent references in this regard are seen in table.[1]

Table 1.—Holy Spirit in the Oid Testament

Past	Present	Future
Genesis 1:2	Isaiah 61:1	Ezekiel 36:26-28
Job 33:4	Isaiah 48:16	Ezekiel 37:13-14
Nehemiah 9:20	Isaiah 11:1,2	Ezekiel 39:29
Haggai 2:5-9	Isaiah 40:10-14	Isaiah 32:15
Psalm 51:11-12	Isaiah 63:10	Isaiah 44:1-3
	Psalm 139:7	Isaiah 59:19-21
	Genesis 6:3	Joel 2:28

Let us briefly consider these scriptures to see what the Old Testament has to say about the Spirit of God, and to learn the attributes of His personality and work. In the first two verses of the Bible (Gen. 1:1-2) we read, "In the beginning God created the heaven and the earth. And the earth was without form and void; and darkness was upon the face of the deep. And the Spirit of God moved upon the face of the waters." Here we

see that the Spirit was present at the beginning of time, and hence is eternal. Job noted that the Spirit participated in creation: "The spirit of God hath made me, and the breath of the Almighty hath given me life (Job 33:4)." The work of the Spirit at the time of the exodus from Egypt is revealed by Nehemiah (9:20), "Thou gavest also thy good Spirit to instruct them, and withheldest not thy manna from their mouth. . . ." Likewise, in Haggai 2:5, "According to the word that I convenanted with you when ye came out of Egypt, so my spirit remaineth among you: fear ye not." It was thus revealed that the Spirit serves for instruction in the ways of God, and that He cleaves to the children of Israel. At a later time, King David said in Psalm 51:10-12, "Create in me a clean heart, O God; and renew a right spirit within me. Cast me not away from thy presence; and take not thy holy spirit from me. Restore unto me the joy of thy salvation; and uphold me with thy free spirit." David here clearly differentiates God the Father from God the Holy Spirit, and points out that the Holy Spirit was both freely given and dwelled within him.

The prophet Isaiah gives us much further information about the Holy Spirit. Isaiah (61:1) acknowledged His presence, "The Spirit of the Lord God is upon me. . . ." Isaiah further noted that the Holy Spirit sent the Messiah (48:16), rested upon Him (11:1-2), and was the source of His wisdom, understanding, counsel, might, knowledge, and fear of God. Isaiah indeed showed that the Spirit is the source of all knowledge (40:13-14). This prophet gave us a definite insight into the personality of the Holy Spirit when he noted that the Spirit could be vexed (Isa. 63:10), "But they rebelled, and vexed his Holy Spirit: therefore he was turned to be their enemy and he fought against them." The omnipresence of the Spirit was noted by David in Psalm 139:7. It must be noted here, however, that the Spirit of God, although cleaving to His people, can be made to withdraw, as was noted in Genesis 6:3.

The prophet Ezekiel also dealt extensively with the Holy Spirit. In speaking of the future restoration of Israel, he spoke of a special gift from God. In Ezekiel 36:26-28 we read, "A new heart also will I give you, and a new spirit will I put within you; and I will take away the stony heart out of your flesh, . . . And I will put my Spirit within you, and cause you to walk in my statutes, . . . And ye shall dwell in the land that I gave to your fathers; and ye shall be my people, and I will be your God." The Lord spoke to Ezekiel about this matter again when explaining a vision to him (Ezek. 37:13-14), "And ye shall know that I am the Lord, when I have opened your graves, O my people, and brought you up out of your graves, and shall put my spirit in you, and ye shall live, and I shall place you in your own land: then shall ye know that I the Lord have spoken it, and performed it, saith the Lord." Ezekiel reemphasizes this in still another vision of restored and redeemed Israel (39:29), "Neither will I hide my face any more from them: for I have poured out my spirit upon the house of Israel, saith the Lord God."

Isaiah also spoke of this outpouring of the Spirit (32:15), "Until the spirit be poured upon us from on high . . ." And again in 44:3, "I will pour my spirit upon thy seed," and the Spirit will protect them in the latter days (Isaiah 59:19-21), "So shall they fear the name of the Lord from the west, and his glory from the rising of the sun. When the enemy shall come in like a flood, the Spirit of the Lord shall lift up a standard against him." The prophet Joel likewise spoke of the promise of the outpouring of the Spirit in the latter days upon the children of Israel (Joel 2:28), "And it shall come to pass afterward, that I will pour out my spirit. . . ."

Summary and Conclusions

One could spend countless hours and untold pages in a study of the triune God. The fact remains, however, that faith comes by hearing, and hearing by the word of God. If one will spend some time in the word of God, the Bible, God will speak to his heart and convict him of the need for a personal acceptance of the Messiah of Israel, the Lord Jesus Christ. There is no doubt from a study of the scriptures that the latter days are rapidly approaching, and it is with this thought in mind that these verses were cited. The essential role of the true Jewish believer in the second coming of our Lord was pointed out by the Messiah Himself, for when speaking in lament over Jerusalem He said, "For I say unto you, Ye shall not see Me henceforth, till ye shall say, Blessed is He that cometh in the name of the Lord."

References

1. Personal communication from Sanford M. Pearlmutter, former Rabbi of Congregation Beth Yeshua, Miami.
2. Smith, J. L.: A Physician Looks at Faith in Christ, J. A. M. A. 196:289-290 (Apr. 18) 1966.

▶Dr. Smith, 9820 S.W. 62nd Court, Miami 33156.

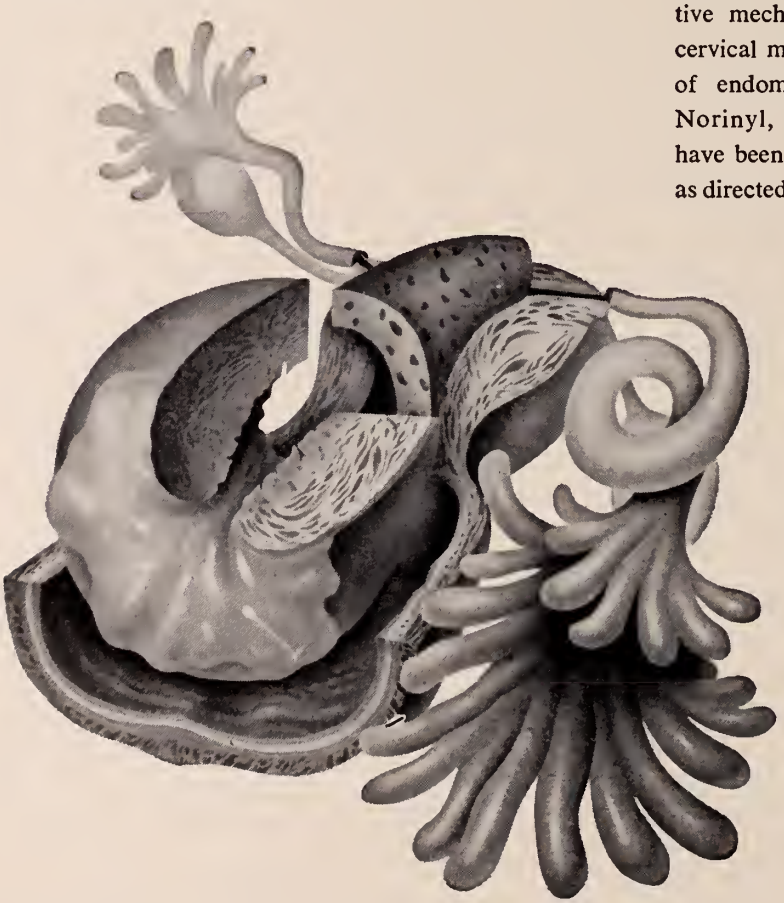
Norinyl® tablets
(norethindrone 2 mg. c mestranol 0.1 mg.)

for multiple contraceptive action that has produced a record of unexcelled effectiveness

inhibition of ovulation by means of 2 time-proved hormonal agents

production of a cervical mucus hostile to sperm motility and vitality

creation of an endometrium unreceptive to egg implantation



no unplanned pregnancies

Norinyl provides multiple action for maximum assurance of success. It does not depend on ovulation inhibition alone for contraceptive effectiveness. The mechanism of action of combined hormonal therapy results in ovulation inhibition reinforced by other protective mechanisms, including a hostile cervical mucus[1-13] and an acceleration of endometrial changes.[1-3,7-16] With Norinyl, no unplanned pregnancies have been reported to date when used as directed.

plus important supportive benefits that help her through those critical early months of oral contraception

low incidence of side effects

Low incidence of BTB and spotting, nausea and amenorrhea tends to minimize side effect problems and increases patient cooperation.

no confusion about dosage

An unbreakable "confusionproof" package makes it easy to adhere to prescribed dosage schedule: individually sealed tablets numbered from 1 through 20 *plus* monthly calendar record enables patient to double-check dosage intake by day and corresponding tablet number.



Contraindications: Thrombophlebitis or pulmonary embolism (current or past). Existing evidence does not support a causal relationship between use of Norinyl and development of thromboembolism. While a study which was conducted does not resolve definitively the possible etiologic relationship between progestational agents and intravascular clotting, it tends to confirm the findings of the Ad Hoc Advisory Committee appointed by the Food and Drug Administration to review this possibility. Cardiac, renal or hepatic dysfunction. Carcinoma of the breast or genital tract. Patients with a history of psychic depression should be carefully studied and the drug discontinued if depression recurs to marked degree. Patients with a history of cerebral vascular accident.

Warning: Discontinue medication pending examination if there is sudden partial or complete loss of vision, or if there is a sudden onset of proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn.

Precautions: By May 1963, experience with norethindrone 2 mg.—mestranol 0.1 mg. had extended over 24 months. Through miscalculation, omission or error in taking the recommended dosage of Norinyl, pregnancy may result. If regular menses fail to appear and treatment schedule has not been adhered to, or if patient misses two menstrual periods, possibility of pregnancy should be resolved before resuming Norinyl. If pregnancy is established, Norinyl should be discontinued during period of gestation since virilization of the female fetus has been reported with oral use of progestational agents or estrogen. When lactation is desired, withhold Norinyl until nursing needs are established. Existing uterine fibroids may increase in size. In metabolic or endocrine disorders, careful clinical preevaluation is indicated. A few patients without evidence of hyperthyroidism had elevated serum protein-bound iodine levels, which in the light of present knowledge, does not necessarily imply hyperthyroidism. Protein-bound iodine increased following estrogen administration. Bromsulphalein retention has occurred in up to 25% of patients without evidence of hepatic dysfunction. Studies from 24-hour urine collections have shown an increase in aldosterone and 17-ketosteroids and decrease in 17-hydroxycorticoid levels. Thus, Norinyl should be discontinued prior to and during thyroid, liver or adrenal function tests. Because progestational agents may cause fluid retention, conditions such as epilepsy, migraine and asthma require careful observation. Thus far no deleterious effect on pituitary, ovarian or adrenal function has been noted; however, long-range possible effect on these and other organs must await more prolonged observation. Norinyl should be used with caution in patients with bone, renal or any disease involving calcium or phosphorus metabolism.

Side Effects: Intermenstrual bleeding; amenorrhea; symptoms resembling early pregnancy, such as nausea, breast engorgement or enlargement, chloasma and minor degree of fluid retention (if these should occur and patient has not strictly adhered to medication plan, she should be tested for pregnancy); weight gain; subjective complaints such as headache, dizziness, nervousness, irritability; in a few patients libido was increased. In a total of 3,090 patients, 2.2% discontinued medication because of nausea.

NOTE: See sections on contraindications and precautions for possible side effects on other organ systems.

Dosage and Administration: One Norinyl tablet orally for 20 days, commencing on day 5 through and including day 24 of the menstrual cycle. (Day 1 is the first day of menstrual bleeding.)

Availability: Dispensers of 20 and 60 tablets; bottles of 100.

References: **1.** Council on Drugs. JAMA 187:664 (Feb. 29) 1964. **2.** Brvans, F. E.: Canad Med Ass J 92:287 (Feb. 6) 1965. **3.** Goldzieher, J. W.: Med Clin N Amer 48:529 (Mar.) 1964. **4.** Cohen, M. R.: Paper presented at Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965. Reported in Med Sci 16:26 (Nov.) 1965. **5.** Hammond, D. O.: Ibid. **6.** Rice-Wray, E., Goldzieher, J. W., and Aranda-Rosell, A.: Fertil Steril 14:402 (Jul.-Aug.) 1963. **7.** Goldzieher, J. W., Moses, L. E., and Ellis, L. T.: JAMA 180:359 (May 5) 1962. **8.** Kempers, R. D.: GP 29:88 (Jan.) 1964. **9.** Tyler, E. T.: JAMA 187:562 (Feb. 22) 1964. **10.** Rudel, H. W., Martinez-Manautou, J., and Maqueo-Topete, M.: Fertil Steril 16:158 (Mar.-Apr.) 1965. **11.** Flowers, C. E., Jr.: N Carolina Med J 25:139 (Apr.) 1964. **12.** Goldzieher, J. W.: Appl Ther 6:503 (June) 1964. **13.** The Control of Fertility. Report adopted by the Committee on Human Reproduction of the American Medical Association. JAMA 194:462 (Oct. 25) 1965. **14.** Flowers, C. E., Jr.: JAMA 188:1115 (June 29) 1964. **15.** Merritt, R. I.: Appl Ther 6:427 (May) 1964. **16.** Newland, D. O.: Paper presented at Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965. Reported in Med Sci 16:26 (Nov.) 1965.

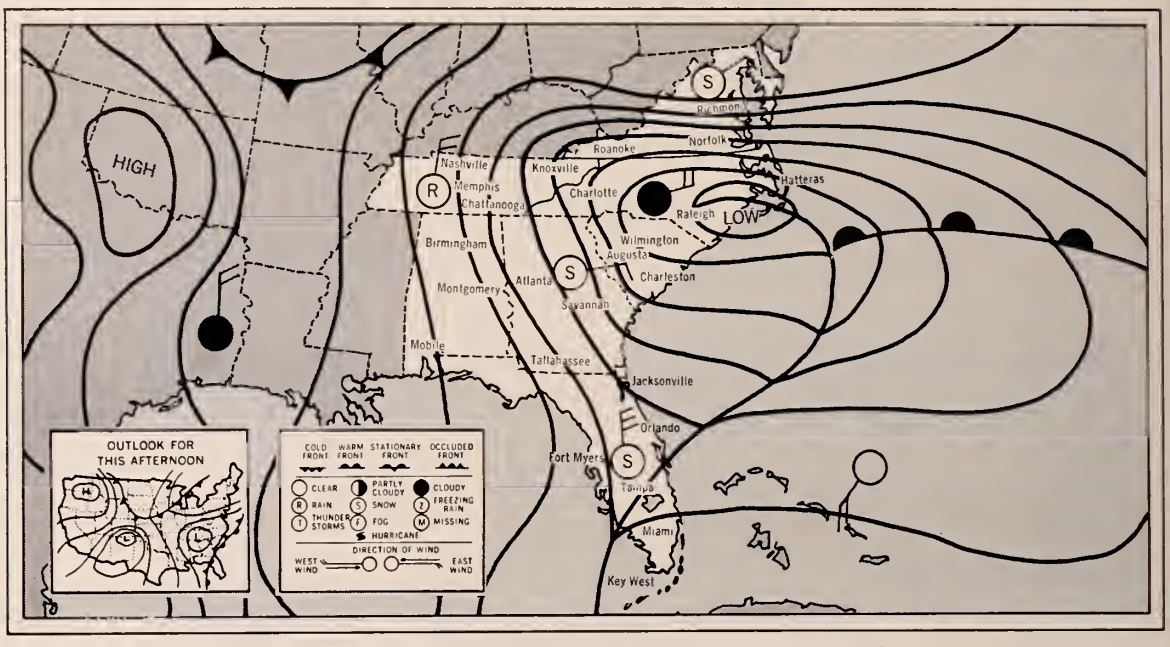
norethindrone—an original steroid from
SYNTEX
LABORATORIES INC., PALO ALTO, CALIF.

Norinyl® tablets
(norethindrone 2 mg ē mestranol 0.1 mg)

for multiple contraceptive action

REGIONAL WEATHER FORECAST

Record Low Temperatures and Heavy Rain Followed by Cough, Stuffed and Runny Noses and Aches and Pains.



Tussagesic breaks up coughs, quickly clears stuffed and runny noses and relieves aches and pains. Provide coverage of the tough cold for up to 24 hours with just a single timed-release tablet dosed morning, midafternoon and at bedtime.

each

Tussagesic®

timed-release tablet contains:

Triaminic® (phenylpropanolamine hydrochloride 25 mg., pheniramine maleate 12.5 mg., pyrilamine maleate 12.5 mg.)	50 mg.
Dextromethorphan hydrobromide	30 mg.
Terpin hydrate	180 mg.
Acetaminophen	325 mg.

Dosage: Adults—1 tablet, swallowed whole to preserve timed-release feature, in morning, midafternoon and at bedtime. *Side effects:* Occasional drowsiness, blurred vision, cardiac palpitations, flushing, dizziness, nervousness or gastrointestinal upsets. *Precautions:* The patient should be advised not to drive a car or operate dangerous machinery if drowsiness occurs. Use with caution in patients with hypertension, heart disease, diabetes or thyrotoxicosis.

DORSEY LABORATORIES • *a division of The Wander Company* • **LINCOLN, NEBRASKA**



Special Article

Automotive Crash Injury Research Study Continues In Florida

FRANCIS T. HOLLAND, M.D.

An intensive four year research study aimed at helping to make automobiles safer "packages" for drivers and passengers will start its seventh six month phase in Florida on April 1, 1967.

Members of the Florida Highway Patrol and staff physicians of participating hospitals are cooperating with the ACIR project of the Cornell Aeronautical Laboratory in a special study of automobile accidents. Special forms are used to report the nature and extent of injuries and the precise causes of injuries sustained by occupants of passenger cars involved in accidents. The new study is limited to the injury-producing accidents involving the four most recent year model cars.

The current ACIR study involves the cooperation of the Florida Highway Patrol, the Florida Medical Association, the Florida Hospital Association and the Florida State Board of Health. The seventh six month phase of the program will take place in the Highway Patrol's Troop L, which includes the counties of Indian River, Martin, Palm Beach, Okeechobee and St. Lucie (fig. 1).

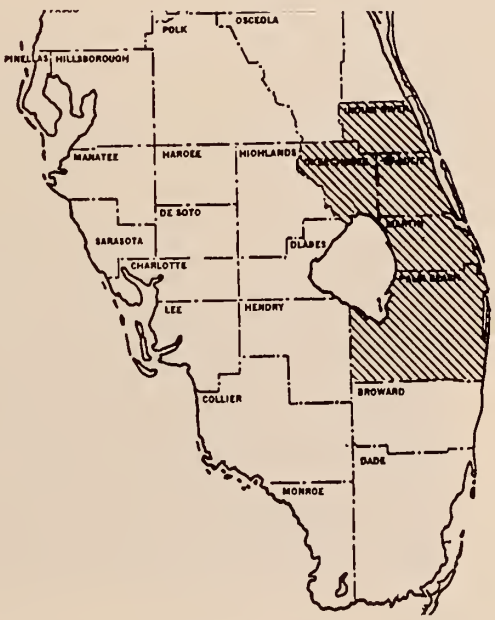


Figure 1.

The primary objective of the ACIR program is to study the relationship between passenger car design and injuries sustained by occupants. It is

Chairman, Medical Advisory Committee, State Department of Public Safety, Tallahassee.

estimated that thousands of American motorists may already have been saved from injury and death by the application of Cornell data to engineering safety designs aimed at increasing passenger protection.

Completed case histories of accidents, including Florida Highway Patrol ACIR reports, photographs and ACIR medical reports, are coordinated by Dr. George McCoy, Director, Accident Prevention Division, Florida State Board of Health. Completed case reports will be forwarded to Cornell in Buffalo, N. Y. for analysis and statistical interpretation.

As the Florida-Cornell ACIR study is past the half way mark, preliminary tabulations have shown that of the 1,745 accident cases investigated, over 2,382 occupants have sustained injuries ranking in severity from minor to fatal. The resulting pool of medical and accident data from the ACIR program has made it possible to produce statistical findings that serve as a basis for automotive design changes aimed specifically at reducing the frequency and severity of injury in accidents. Based on the ACIR studies, design modifications such as improved door holding mechanisms, recessed steering wheel hubs, padded instrument panels and sunvisors, and seat belts have been effective in reducing injury.

Officials of the ACIR project are convinced that much can be done to mitigate future injury by means of vehicle design if only the mechanisms and type of injury are thoroughly understood. Solution to the problem is sought by statistical analysis of injury occurring in automobile accidents throughout the nation.

The basic functions of ACIR are accident data collection; analysis of injury causation; recommendation of corrective action and evaluation; general dissemination of information on the causes of injury, their types, frequency of occurrence and relation to vehicle configuration.

▶ Dr. Holland, 1307 Miccosukee Road, Tallahassee 32303.

APPALACHIAN HALL

ASHEVILLE Established 1916 NORTH CAROLINA



An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.

Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.

Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

Wm. Ray Griffin Jr., M.D.
Robert A. Griffin, M.D.

Mark A. Griffin Sr., M.D.
Mark A. Griffin Jr., M.D.



UP TO 10-12 HOURS' CLEAR BREATHING ON ONE TABLET

Dimetapp® Extentabs®

(Dimetane® [brompheniramine maleate], 12 mg.; phenylephrine HCl, 15 mg.; phenylpropanolamine HCl, 15 mg.)

sinusitis, colds, or U.R.I.,
metapp lets congested patients
eathe easy again. Each Extentab
ings welcome relief all day or all night,
ually without drowsiness or over-
mulation. Its key to success? The
metapp formula—Dimetane (brom-
eniramine maleate), a potent anti-
tamine reported in one study to have
cited side effects as few as the placebo,*
amed with decongestants phenyl-
hrine and phenylpropanolamine—
a dependable 10- to 12-hour form.

er, I. W., and Lowell, F. C. New England
ed. 261:478, 1959.

Contraindications: Patients hypersensitive to antihistamines. Not recommended for use during pregnancy.

Precautions: Until the patient's response has been determined, he should be cautioned against engaging in operations requiring alertness. Administer with care to patients with cardiac or peripheral vascular diseases or hypertension.

Side Effects: Hypersensitivity reactions including skin rashes, urticaria, hypotension and thrombocytopenia have been reported on rare occasions. Drowsiness, lassitude, nausea, giddiness, dryness of the mouth, mydriasis, increased irritability or excitement may be encountered.

Dosage: 1 Extentab morning and evening, or as needed.

Supplied: Bottles of 100 and 500.

Also available: Dimetapp® Elixir for conventional *t.i.d.* or *q.i.d.* dosage. See package insert for further details.

A. H. ROBINS CO., INC.
RICHMOND, VIRGINIA 23220

A·H·ROBINS



Don't delegate your authority in the choice of drugs

Generic prescribing allows a third party to choose for you. This does not of necessity ensure therapeutic effectiveness or lowest patient cost.

You can prescribe the quality and purity of ACHROMYCIN® V Tetracycline-Lederle at a cost that is within pennies-a-day of the low-priced generic tetracycline.

When you prescribe tetracycline, write ACHROMYCIN V. It's good policy, good medicine and good economy, all in one prescription. LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York.

MAJOR PRICE REDUCTION JAN. 15, 1967

ACHROMYCIN® V TETRACYCLINE-LEDERLE

Lederle

The Proof of Excellence is in the Performance

for noses of every description, one safe and sure prescription:

Otrivin®

(xylometazoline CIBA)
on Rx only







■ quickly relieves congested nose
■ action is gentle, yet prolonged
■ side effects are minimal

NDICATION: Nasal congestion. CONTRAINDICATION: Do not use n patients sensitive to small doses of sympathomimetic substances. WARNINGS: Prolonged or excessive use may cause rebound congesion. Use cautiously in patients with hyperthyroidism, coronary artery disease, hypertension, and diabetes. CAUTION: Do not shake Nasal Spray. Rinse Nasal Solution dropper or Nasal Spray tip in hot water after each use. No more than one person should use the same dropper bottle or nasal spray.
SIDE EFFECTS: Occasional local reactions: rebound congestion, slight burning or stinging, sneezing, dry nose. Occasional systemic effects: headache, drowsiness, lightheadedness, insomnia, palpitaions. Overdosage in young children may produce profound sedation. DOSAGE: **Adults:** *Nasal Solution*—2 or 3 drops in each nostril every 4 to 6 hours. *Nasal Spray*—Squeeze rapidly once or twice in each nosril every 4 to 6 hours. **Children under 12:** *Pediatric Nasal Solution*—2 or 3 drops in each nostril every 4 to 6 hours. One drop should be used in infants under 6 months. *Pediatric Nasal Spray*—Squeeze rapidly once in each nostril holding tube upright; repeat every 4 hours as necessary. SUPPLIED: OTRIVIN® hydrochloride (xylometazoline hydrochloride CIBA) *Nasal Solution,* 0.1%; dropper bottles of 1 fluidounce, bottles of 1 pint. *Nasal Spray,* 0.1%; plastic squeeze tubes of 15 ml. *Pediatric Nasal Solution,* 0.05%; dropper bottles of 1 fluidounce. *Pediatric Nasal Spray,* 0.05%; plastic squeeze tubes of 15 ml. *Nasal Solutions* contain either 0.1% or 0.05% xylometazoline hydrochloride, triethanolamine, hydrochloric acid, sodium chloride, and phenylmercuric acetate 1:50,000 as preservative in water. *Nasal Sprays* contain either 0.1% or 0.05% xylometazoline hydrochloride, potassium phosphate monobasic, potassium chloride, sodium phosphate dibasic, sodium chloride, and benzalkonium chloride 1:5000 as preservative in water. *Consult complete literature before prescribing.*

CIBA Pharmaceutical Company, Summit, N. J.

CIBA

2/3329 MKL-1


Do your patients
shell out too much
for a diuretic?

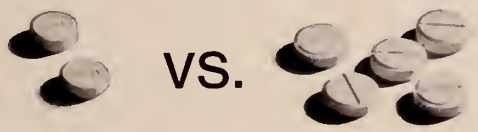
The answer may be yes... if they're not on Hygroton. For instance, a therapeutic dose of a short-acting diuretic may cost 3 times as much as an equivalent dose of Hygroton. With Hygroton, in fact, you can usually do the job with just one tablet a day or one every other day. It's no wonder that the trend has been away from short-acting, multiple-dose, high-cost diuretics.

You may hear that a short-acting diuretic was more effective in a 400 mg. (ten-tablet) dose than Hygroton in a 200 mg. (two-tablet) dose.

If one considers maximum recommended doses for each product, tablet for tablet Hygroton was clearly superior. Two tablets of Hygroton were found to produce almost 40% more natruresis and 20% more weight loss than five tablets of the other diuretic.* Note that these are maximum recommended doses!

For effectiveness, economy, and convenience, therefore, Hygroton is the diuretic to choose to start with and the one to stay with.

*Brest, A. N., et al.: J. New Drugs 5:329, 1965.



Natruresis above control values after maximum recommended doses (mEq./24 hours) in "normal" patients

111	152
5 tablets short-acting nonthiazide diuretic	2 tablets Hygroton

48-hour weight loss after maximum recommended doses in edematous patients with congestive heart failure due to arteriosclerotic or rheumatic heart disease

1.84 lbs.	2.2 lbs.
5 tablets short-acting nonthiazide diuretic	2 tablets Hygroton

Indications: Hypertension and many types of edema involving retention of salt and water.
Contraindications: Hypersensitivity and most cases of severe renal or hepatic disease.
Warning: With administration of enteric-coated potassium supplements, the possibility of small bowel lesions should be kept in mind.
Precautions: Reduce dosage of concomitant antihypertensive agents by at least one-half. Discontinue if the BUN rises or liver dysfunction is aggravated. Electrolyte imbalance and potassium depletion may occur; take special care in cirrhosis or severe ischemic heart disease, and in patients receiving corticosteroids, ACTH, or digitalis. Salt restriction is not recommended.
Side Effects: Dizziness, weakness, nausea, vomiting, hyperglycemia, hyperuricemia, headache, muscle cramps, postural hypotension, constipation, leukopenia, thrombocytopenia, agranulocytosis, impotence, dysuria, transient myopia, skin reactions, including urticaria and purpura, epigastric pain, or G.I. symptoms after prolonged administration.
Average Dosage: One tablet (100 mg.) with breakfast daily or every other day.
Availability: Tablets of 100 mg. in bottles of 100 and 1000.
For full details, see the complete prescribing information.
6524-V(B)

HY-4736S

Hygroton®
chlorthalidone

Geigy
Geigy Pharmaceuticals
Division of
Geigy Chemical Corporation
Ardsley, New York

The Medical Detective



Slaughter of the Innocents

The death of a young child is always a sad and disheartening experience to face in medical practice. Should this happen unexpectedly and without medical attendance, one has to be well aware of the possibilities which may exist in such a case. These include unexpected injury related to a ruptured viscus or head trauma, accidental poisoning, unsuspected infectious disease and, as in the following case, unsuspected violence.

One evening after office hours a young general practitioner was called to the emergency room of a small county hospital. A 13 month old child was brought in by his parents in a moribund state. There were no vital signs and the pupils were fixed. The body was warm and a bruise was noted on the head in the right parietal region. The father was a young enlisted man stationed at a local air field. He stated that the child had fallen from the couch to the floor and could not be revived. The injury had occurred several hours before but they were unable to get transportation to the hospital.

The physician was willing to accept the story until he noticed several areas of ecchymosis of varying size on the child's back and the outline of teeth marks on the right buttock. The parents denied any violence. The general practitioner refused to sign the death certificate without having the case investigated by local authorities. The police agreed to the possibility of foul play and asked permission of the state attorney to authorize an autopsy, which was done the next day.

The autopsy revealed the aforementioned ecchymoses which had occurred at different times. The teeth marks were recent. The child's death was due to injuries of the head, which included a recent left subdural hematoma and contusions of the brain. The body was x-rayed and multiple fractures in different stages of healing were demonstrated. Thus the clinical and pathological picture of the Battered Child Syndrome was disclosed. A mild level of serum barbiturates was an incidental finding.

As a result of these findings, a police investigation was ordered and revealed that the child was born four months after the marriage of this couple and that the father beat the child because of its crying. He admitted this freely and further admitted that on the evening of the child's death he had thrown him against the wall. The wife was helpless and in mortal fear of her husband.

The father was given a thorough psychiatric evaluation while in custody and after being found guilty of manslaughter was given a suspended sentence.

William G. Eckert, M.D.

When thiazide or reserpine alone won't keep



Establish and maintain early, more decisive control of blood pressure

en blood pressure won't stay down despite initial therapy—
en complaints of headache, fatigue or dizziness are often
ced—it may be time for a change to DIUTENSEN-R.

TENSEN-R is thiazide and reserpine plus cryptenamine—a
onal, comprehensive therapy to help establish and maintain
ly, more decisive control of blood pressure.

e cryptenamine in DIUTENSEN-R helps improve normal vaso-
ting reflexes while the thiazide and reserpine components
intain vasorelaxant, sedative, and saluretic benefits. Cryp-
amine lowers pressoreceptor reflex thresholds (which may
abnormally high in hypertension)—"resets" pressoreceptors
function at more nearly normotensive levels.

ly, more decisive control with DIUTENSEN-R *helps secure con-
ing benefits—may reduce or even obviate the need for poorly
erated drugs later in therapy.*

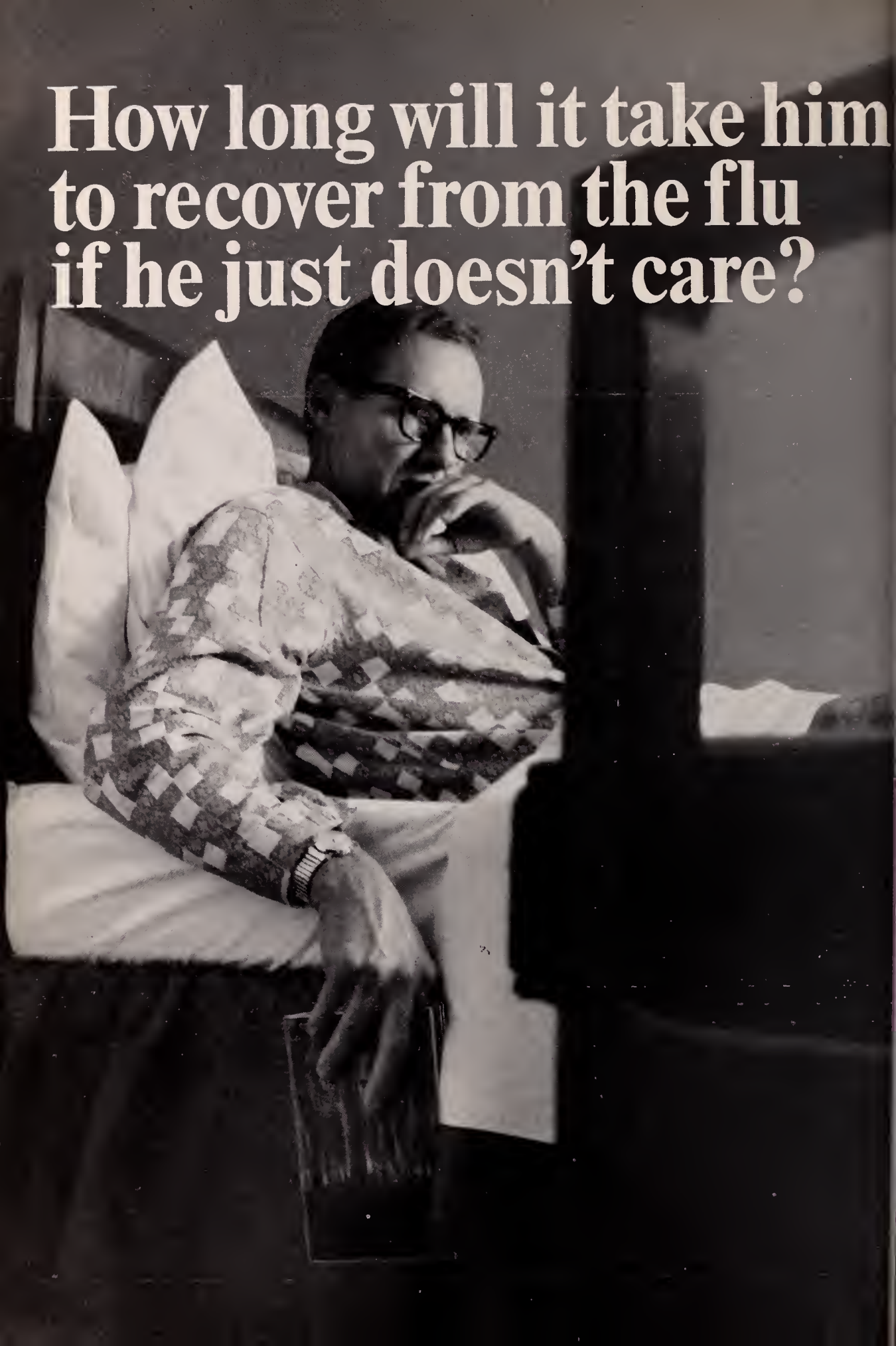
Indications: DIUTENSEN-R may be employed in all grades of essenti
hypertension.
Dosages: Usual dose is 1 tablet twice daily, at morning and evenir
meals. However, adjustment of dosage to suit individual circumstance
may be required. Please refer to package insert for full particulars.
Side effects and precautions: The side effects observed with patients c
DIUTENSEN-R have been of a mild and nonlimiting nature. These includ
occasional urinary frequency, nocturia, nasal congestion, muscle cramp
skin rash, joint pains due to gout and nausea and dizziness which hav
been reported for the individual components. Most of these symptom
disappear while the drug is continued at the same or lower dosage leve
The concomitant use of digitalis and DIUTENSEN-R may increase the po
sibility of digitalis-like intoxication. If there is evidence of myocardi
irritability (extrasystoles, bigeminy or AV block), dosage of DIUTENSEN-
should be reduced or discontinued. Nocturia in patients with margin
cardiac status and salt and fluid retention can be effectively controlle
by limiting the time of administration to early afternoon. DIUTENSEN-
should not be used in patients with a known intolerance to reserpin
Package inserts furnish a complete summary of recommended caution
related to each of the ingredients of DIUTENSEN-R.
*As tannate salts equivalent to 130 Carotid Sinus Reflex Units.

NEISLER UNION CARBIDE
NEISLER LABORATORIES, INC. • DECATUR, ILLINO
SUBSIDIARY OF UNION CARBIDE CORPORATION

DIUTENSEN-R®

Cryptenamine 1.0 mg* Methyclothiazide 2.5 mg Reserpine 0.1 mg

How long will it take him to recover from the flu if he just doesn't care?



Does he really care?
s he alert, encouraged,
ositive and optimistic
bout getting out of bed
id back to work soon?
Or is he giving in to
ie depressing impact
f confinement?
When functional fatigue
mplicates convalescence,
lertonic can help...

Pleasant-tasting Alertonic is pipradrol hydrochloride —an effective cerebral stimulant whose gentle analeptic action helps counteract the apathy and inertia that so often delay convalescence—together with an excellent vitamin and mineral formula, in a satisfying 15% alcohol vehicle.

Nothing fosters confidence and a sense of well-being better than your own personal warmth, understanding and encouragement together with Alertonic to help insure prompt response.

Adequate dosage is important: Prescribe Alertonic—one tablespoonful t.i.d., 30 minutes before meals...tastes best chilled.
And for your patient's sake, prescribe Alertonic in the convenient, economical one-pint bottle.

Alertonic®

Available Only On Prescription

Each 45 cc. (3 tablespoonfuls) contains: alcohol, 15%; pipradrol hydrochloride, 2 mg.; thiamine hydrochloride (vitamin B_1) (10 MDR*), 10 mg.; riboflavin (vitamin B_2) (4 MDR), 5 mg.; pyridoxine hydrochloride (vitamin B_6), 1 mg.; niacinamide (5 MDR), 50 mg.; choline,† 100 mg.; inositol,† 100 mg.; calcium glycerophosphate, 100 mg. (supplies 2% MDR for calcium and for phosphorus) and 1 mg. each of the following: cobalt (as chloride), manganese (as sulfate), magnesium (as acetate), zinc (as acetate), and molybdenum (as ammonium molybdate).

*Multiple of adult Minimum Daily Requirement supplied.
†The need for these substances in human nutrition has not been established.

Indications: 1. Functional fatigue such as that often associated with: a depressing life experience or stressful time of life; advancing years; convalescence; limited activity or confinement. 2. Poor appetite and vitamin-mineral deficiency as they occur in: patients having faulty eating habits; geriatric patients who are losing interest in food; patients convalescing from debilitating illness or surgery.

Contraindications: As with other drugs with CNS stimulating action, Alertonic is contraindicated in hyperactive, agitated or severely anxious patients and in chorea or obsessive compulsive states.

Side effects: Reports of overstimulation have been rare. Patients who are known to be unduly sensitive to the effects of stimulant drugs should be observed carefully in the initial stages of treatment.

Dosage: Adults, 1 tablespoonful; children (over 15 years old), 1 to 2 teaspoonfuls; children (4 to 15 years old), 1 teaspoonful. To be taken three times daily 30 minutes before meals.

Merrell
THE WM. S. MERRELL COMPANY
Division of Richardson-Merrell Inc.
Cincinnati, Ohio 45215

6-7907



Togetherness....

...can be rough when epidemics of nausea and vomiting strike a family. Emetrol offers prompt, safe relief. It is free from toxicity[1] or side effects[2,3] and will not mask symptoms of serious organic disorders.

1. Bradley, J. E., *et al.*: J. Pediat. *38*:41 (Jan.) 1951.
2. Bradley, J. E.: Mod. Med. *20*:71 (Oct. 15) 1952.
3. Crunden, A. B., Jr., and Davis, W. A.: Am. J. Obst. & Gynec. *65*:311 (Feb.) 1953.



ROHRER

WILLIAM H. RORER, INC.
Fort Washington, Pa.

Emetrol®
phosphorated carbohydrate solution
emesis control

Anclote
MANOR
FOUNDATION
SAMUEL G. HIBBS, M.D.
PRESIDENT OF THE BOARD AND FOUNDER
A Non Profit Organization
TARPON SPRINGS, Florida
Telephone 937-4211

Member National Association of Private Psychiatric Hospitals,
Approved by American Psychiatric Association,
Accredited by Joint Commission on Accreditation of Hospitals.

A modern hospital offering intensive and comprehensive psychiatric treatment. The completeness of the unification of the entire staff makes the approach unique, but not radical. All acceptable treatment modalities are used but absolute precedence is given to psychotherapy, individual and group, with special attention to the family process.

LORANT FORIZS, M.D., F.A.P.A.
MEDICAL DIRECTOR
WALTER H. WELLBORN, JR., M.D., F.A.P.A.
CLINICAL DIRECTOR
THEODORE E. GAGLIANO, M.D., F.A.P.A., DIPLOMATE
DIRECTOR OF ADMISSIONS, EDUCATION AND TRAINING

STAFF PSYCHIATRISTS
RONALD M. BACKUS, M.D., DIPLOMATE
JOHN R. ERWIN, M.D., DIPLOMATE
LAWRENCE J. LEWIS, M.D.
RICHARD L. MEADOWS, M.D., DIPLOMATE
CHARLES J. SAPORITO, M.D.
ROBERT G. ZEITLER, M.D.

STAFF PSYCHOLOGISTS
PATRICK J. DIGNAM, PH.D.
DONALD R. FARREN, PH.D.
JAMES B. MORRIS, PH.D.



Special Article

Smoking And Accidents

JAMES E. FULGHUM, M.D., BROWARD WILLIAMS and ROBERT SNOWDEN

The State Board of Health and the State Fire Marshal, at the suggestion of the Florida Committee on Smoking and Health, implemented plans for a study of the relationship of smoking and accidents in Florida during 1965.

A wealth of information exists in the literature with reference to smoking and its effects on health. One area of interest about which little is published is that of smoking and accidents. We know that smoking has been associated with a variety of accidents. Among these, fires have the most obvious and important consequences. We know that smoking is associated with accidental injuries and deaths in a number of ways, such as fires in places of occupancy. It was thought that more recent up-to-date information was needed on the subject to bring important aspects of this matter to the attention of the people.

Background

The recent report[1] of the advisory committee to the Public Health Service Surgeon General stated that smoking has been associated with a variety of accidents. Special studies carried out by the Public Health Service, the National Safety Council[2] and the Metropolitan Life Insurance Company[3,4,7] indicated that approximately 16% to 18% of deaths from fires were caused by fires due to smoking.

At the international level,[8] cigarettes rank among the three principal causes of fires in many well known cities of the world. In Honolulu, San Francisco and Tokyo, cigarettes ranked first as a cause of fires. London ranked them second. Many other cities had equal rankings.

For the entire United Kingdom,[9] the three principal causes of building fires in 1964 are listed as: (1) children with fire (matches), (2) careless smoking, and (3) defective chimney and stove pipes.

Fires caused by smoking materials not only kill and injure thousands each year, but the financial loss incurred in these fires is considerable. Statistics compiled by the National Fire Protection Association revealed the following nationwide losses from fires due to smoking.[10]

Year	No. Fires Structural	Loss Structural	Loss Per Fire Structural
1964	159,400	$79,500,000	$499
1963	155,500	71,500,000	459
1962	145,300	64,000,000	441

Losses and numbers of fires cited are for fires only within structures and losses covering buildings and contents; they do not include losses in the open like automobiles, boats, airplanes and forests.

Fire statistics are available from a number of sources. One most representative illustration is

Dr. Fulghum is Director of Adult Health and Chronic Diseases, Florida State Board of Health, Jacksonville.

Mr. Williams is State Treasurer and State Fire Marshal, Tallahassee.

Mr. Snowden was a summer student with the Florida State Board of Health, 1966. He is presently a student at Vanderbilt University School of Medicine, Nashville, Tenn.

from a report of the National Fire Protection Association reported to us in a letter[11] from American Mutual Insurance Alliance. This organization publishes detailed "Occupancy Fire Records" and the percentage of fires in these occupancies caused by smoking and matches is as follows:

	Per Cent
Country clubs	32
Laundries	31
Department stores	28
Hotels	26
Homes for the aged	25
Grocery warehouses	25
Fraternities	24
Hospitals	21
Garages	20
One family dwellings	18

The causes of fires are many, but three consistently rank at the top of the list. These are defective heating equipment, defective electrical wiring and equipment, and smoking. Smoking often leads the three.

Purpose

The purpose of the study was to determine the number of fires due to smoking in Florida during 1965 and the loss of life and property due to these fires.

Method of Procedure

The study was planned in three stages. First, the literature was reviewed to determine baseline data on the subject at the national level. Second, with the assistance of representatives of the office of the State Fire Marshal, the fire chiefs of Florida were contacted. Third, the data were collected and the results compiled and prepared as a report.

Report of Findings

Four hundred and eighty letters were mailed to fire chiefs in Florida requesting information for the year 1965. One hundred and seventy-six replies were returned, a 36.7% response rate. Returns represented 46 of the most populous counties of Florida and covered an estimated 3,462,000 persons. One hundred fifty-nine reports provided usable information. Some reports were fully prepared and others were somewhat incomplete.

We do not represent these findings to be complete for the state. No effort has been made to study the nonrespondents, nor was there any attempt made to apply intricate statistical methods to the data.

Fires from all causes attended by the reporting fire chiefs during the period numbered 33,300. Of these fires, 2,120, or 6.4%, were determined to be due to smoking. This percentage is somewhat lower than that reported in the literature. Many of the reports reviewed, however, grouped children playing with matches in the category with careless smokers. This survey did not include the "children with matches" group.

Injuries and Deaths

Ninety personal injuries were reported and 34 persons lost their lives in the 2,120 fires due to smoking in Florida during 1965 (table 1). The loss of a single life is a tragedy. Twenty-four males and 10 females lost their lives for a total of 34 persons. Twenty persons, or 59%, were in the 35 to 64 age category. Eleven, or 32%, were in the 65 or over age category.

Table 1.—Deaths by Age and Sex Due To Fires Caused by Smoking, Florida, 1965

Total All Ages	Male 24	Female 10	Total 34
0-5	0	0	0
6-14	1	0	1
15-34	1	1	2
35-64	14	6	20
65+	8	3	11

Location

Fires due to smoking were classified according to location of occurrence. Table 2 classifies locations into 12 categories which are self explanatory. From a review of the reports, the fire chiefs included in the "other" category automobile fires, woods fires and grass fires.

Table 2.—Fires by Location Due to Smoking, Florida, 1965

Total	Number Fires 2,120	Per Cent 100
Dwellings, single occupancy	1,014	48.0
Duplex and apartments	56	2.6
Institutional occupancy	56	2.6
Industrial occupancy	54	2.4
Hotels	50	2.3
Public assembly occupancy	42	2.0
Motels	37	1.8
Mobile homes	29	1.4
Office occupancy	11	.6
Fraternities, sororities	11	.6
Educational occupancy	8	.4
Other	752	35.3

As the responses began to come in, it was soon apparent that a large percentage of the smoking fires listed under "other" was in automobiles and woods and brush fires. The Florida State Forestry Service[12] reports that during 1965, 5,615 woods

fires were reported and that 784, or 14%, were judged to be due to careless smokers.

Financial Loss

Financial losses as a result of fires due to smoking in Florida were reported at $867,500 in 1965. This total is approximately $410 per fire, an expensive habit in more ways than one.

Summary

Results of a survey of 159 fire departments in Florida are reported. The survey covered 3,462,000 of the state's population in 46 counties during 1965. Ninety injuries and 34 deaths as a result of the 2,120 fires due to smoking during this period in Florida are reported. Financial loss due to these fires is estimated to be $867,500, an average of $410 per fire. This compares well with nationwide averages[10] previously listed.

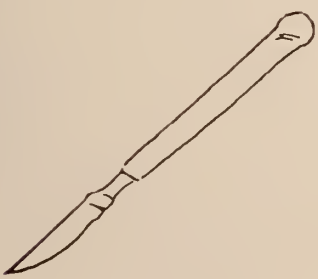
In conclusion, it is evident from this study that accidents as a result of fires due to smoking are a serious problem involving the loss of life and finances, a problem which has not been fully brought to the attention of Florida citizens.

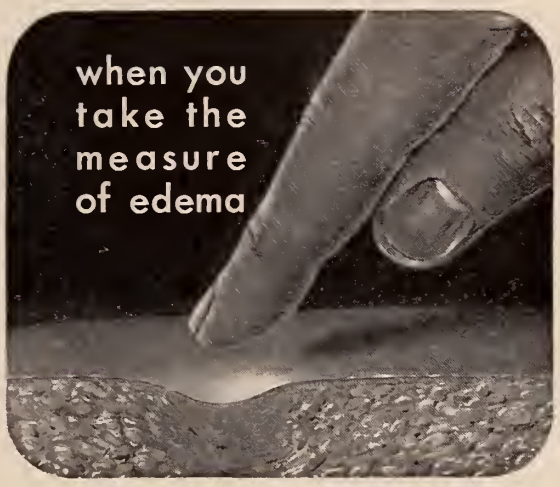
"There is no fire without some smoke."
John Heywood
(1497-1580)

We acknowledge with grateful appreciation the assistance of Mr. W. T. Knight, Chief Deputy, State Fire Marshal, and Mr. T. W. Burkhart, Deputy State Fire Marshal, for their part in the planning and implementation of this survey. We appreciate the fine cooperation and assistance of the fire chiefs of the state in completing and returning the information questionnaire.

References are available from the authors upon request.

Dr. Fulghum, P.O. Box 210, Jacksonville 32201.





. . . introduce your patient to

AQUATAG®
(BENZTHIAZIDE)

AQUATAG (Benzthiazide) is a potent, orally active, nonmercurial, diuretic agent. It is effective orally in producing diuresis in edema states, where it is therapeutically comparable to mercurials given parenterally. AQUATAG (Benzthiazide) is mildly antihypertensive in its own right and enhances the action of other antihypertensive drugs when used in combination.

DIURETIC ACTION: Clinically, the oral administration of AQUATAG (benzthiazide) results in diuretic activity within two hours with maximal natriuretic, chloruretic, and diuretic effects occurring during the fourth, fifth and sixth hours. Maintenance of response continues for approximately 12 to 18 hours. Acidosis is an unlikely complication since therapeutic doses of AQUATAG (benzthiazide) do not appreciably increase bicarbonate excretion. Edematous patients receiving 50 mg. of AQUATAG (benzthiazide) daily for five days developed a maximal increase in the rate of sodium excretion on the first day, and maintained this high rate until depletion of excessive body stores of sodium.

In congestive heart-failure patients, AQUATAG (benzthiazide) produced the same weight loss, during a 48-hour treatment period as did a maximally effective dose of hydrochlorothiazide.

DOSAGE: Diuresis, initially 50 to 200 mg.; maintenance 25 to 150 mg., daily. Hypertension 50 to 100 mg. initially, adjusted to 50 mg. t.i.d. or downward to minimal effective dosage level.

WARNINGS: Use with caution in the presence of renal disease as azotemia may be precipitated or increased. In patients with advanced hepatic disease, electrolyte imbalance may result in hepatic coma. Dosage of coadministered antihypertensive agents should be reduced by at least 50%. In cases of suspected electrolyte imbalance, serum electrolyte determinations should be performed and imbalance, if any, corrected. Stenosis or ulcer of small intestine have been reported with coated potassium formulas, and surgery has been required and deaths have occurred. Based on surveys of both United States and foreign physicians, incidence of these lesions is low and a causal relationship in man has not been definitely established. Until further experience has been obtained, the use of the drug in pregnant patients should be weighed against possible hazards to the fetus.

CONTRAINDICATIONS: AQUATAG (benzthiazide) is contraindicated in progressive renal disease or dysfunction including increasing oliguria and azotemia. Continued administration of this drug is contraindicated in patients who show no response to its diuretic or antihypertensive properties. Severe hepatic disease is a relative contraindication. (See "Warnings" above.)

PRECAUTIONS AND SIDE EFFECTS: Electrolyte imbalance with hypokalemia (digitalis toxicity may be precipitated), hypochloremic alkalosis and hyponatremia may occur. Patients with cirrhosis should be observed for impending hepatic coma and hypokalemia. Other reactions may include blood dyscrasias, hyperuricemia and gout, nausea, jaundice, anorexia, vomiting, diarrhea, dizziness, paresthesia, photosensitivity and headache. Hepatic fetor, tremor, confusion and drowsiness are signs of impending pre coma and coma in patients with cirrhosis. Insulin requirements may be altered in diabetes. AQUATAG (benzthiazide) should be used with caution post-operatively as hypokalemia is not uncommon. Potassium supplementation may be advisable pre- and post-operatively. There have been occasional reports of thrombocytopenia, leukopenia, agranulocytosis, aplastic anemia and precipitation of acute pancreatitis or jaundice.

Before prescribing or administering, read the package insert or file card available on request.

Available as 25 or 50 mg. scored tablets.

Request clinical samples and literature on your letterhead.

S.J. TUTAG
& COMPANY
Detroit, Michigan 48234



Perhaps there have been times when you wanted to prescribe erythromycin and triple sulfas for little patients. No you can—with a choice of two new fine-tasting pediatric forms.

New–Two Pediatric Forms of Erythromycin and Triple Sulfas





ERYTHROCIN®-SULFAS Chewable (Erythromycin ethyl succinate-trisulfapyrimidines chewable tablet)

In clinical trials[1,2], this orange-flavored tablet was given to 55 patients, aged four months to 18 years.

Diagnoses (multiple in some cases) represented a cross section of bacterial infections commonly seen in pediatric office practice.

Therapy was given from three to 12 days, with an average of six days.

Of the 55 patients, 30 were reported cured within 72 hours, while 22 showed partial recovery within the same time, and subsequent clinical cure.

A clinical cure rate of 94.5%

ERYTHROCIN®-SULFAS Granules (Erythromycin ethyl succinate-trisulfapyrimidines granules for oral suspension)

87 patients were treated[1,2]—all children, ages four months to 15 years.

The diagnoses were multiple in some cases and were chiefly bacterial infections of the respiratory tract.

Dosage was maintained from three to 10 days; average treatment was five days. All of the ill children accepted the orange-flavored suspension favorably.

53 were clinically cured within 72 hours, while 32 showed partial relief within the same time, and subsequent clinical cure.

701358

A clinical cure rate of 97.7%

Case Reports on File, Dept. Clin. Development, Abbott Laboratories.
Polley, R.F.L., Use of Erythromycin-Sulfas in Office Practice, Western Med., 7:177, July, 1966.

ABBOTT

Brief Summary on next page

ERYTHROCIN®-SULFAS
Brief Summary

Contraindications: Known sensitivity to erythromycin or sulfonamides. Because of the possibility of kernicterus with sulfonamides, do not use in pregnancy at term, premature or newborn infants.

Warnings: As with other forms of sulfonamide therapy, carefully evaluate patients with liver or kidney damage, urinary obstruction, or blood dyscrasia. Deaths have been reported from hypersensitivity reactions and blood dyscrasias following use of sulfonamides. Perform blood counts and liver and kidney function tests if used repeatedly at close intervals or for long periods.

Precautions, Side Effects: Occasionally mild abdominal discomfort, nausea or vomiting may occur with erythromycin, generally controlled by reduction of dosage. Mild allergic reactions (such as urticaria and other skin rashes) may occur. Serious allergic reactions have been extremely infrequent. Use sulfonamides with caution in patients with a history of allergy. Assure adequate fluid intake to prevent crystalluria and institute alkali therapy if indicated. If overgrowth of nonsusceptible organisms occurs, withdraw the drug and institute appropriate treatment. If a patient should show signs of hypersensitivity, appropriate countermeasures (e.g. epinephrine, steriods, etc.) should be administered and the drug withdrawn.

Adverse Reactions: Sulfonamide therapy may be associated with headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, skin rash, injection of the conjunctiva and sclera, petechiae, purpura, hematuria and crystalluria.

Side effects due to erythromycin are infrequent, but occasional abdominal discomfort, nausea, or vomiting, urticaria and other skin rashes may occur.

Supplied: The Granules for Oral Suspension come in bottles of 60 ml. and 150 ml. The Chewable tablets are in bottles of 50. Each 5-ml. teaspoonful of reconstituted Granules or each Chewable tablet provides erythromycin ethyl succinate equivalent to 125 mg. of erythromycin activity and 167 mg. of each of sulfadiazine, sulfamerazine and sulfamethazine.

ABBOTT

701358

mudrane®

for

- EMPHYSEMA
- ASTHMA
- CHRONIC BRONCHITIS
- BRONCHIECTASIS

The fast-disintegrating uncoated tablet gives relief in 15 minutes

Each tablet contains:

Potassium Iodide	195 mg.
Aminophylline	130 mg.
Phenobarbital, Caution: May be habit forming...	21 mg.
Ephedrine HCl	16 mg.

FEDERAL LAW PROHIBITS
DISPENSING WITHOUT PRESCRIPTION

Precautions: Usual for aminophylline-ephedrine-phenobarbital. Iodides may cause nausea, long use may cause goiter. Discontinue if symptoms of iodism develop.

Iodide contraindications: tuberculosis, pregnancy.

DOSAGE

One tablet, with full glass of water, 3 or 4 times daily.

Dispensed in bottles of 100 and 1000 tablets.

MUDRANE GG—Formula, dosage and package identical to Mudrane—*except*—100 mg. glyceryl guaiacolate replaces the potassium iodide. The value of Mudrane cannot be enjoyed by a small group in which K.I. is contraindicated. Mudrane GG is prepared for this group.

MUDRANE GG ELIXIR—Four 5 cc teaspoonfuls is equivalent to one Mudrane GG tablet. Dosage adjusted to age and weight of child. Mudrane GG Elixir is for pediatric patients and those who think they cannot swallow tablets. Dispensed in pint and half gallon bottles.

WM. P. POYTHRESS & CO., INC.
RICHMOND, VIRGINIA 23217
Manufacturers of ethical pharmaceuticals since 1856

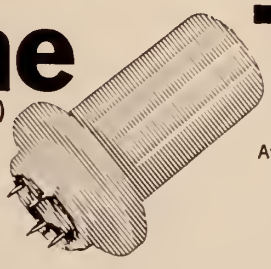
what time is it?

For the past
two years
there's been
one new case
of active tuberculosis
reported for every
four thousand
of U.S. population.

it's time to tine.

Tuberculin, Tine Test

(Rosenthal)



Lederle

Available in 5's and 25's.
Order now
from your pharmacist
or your Lederle
representative.

LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York

Lederle

414-6—404cR



Others Are Saying

In Memory of Good Old Doc

"Medicine's public image was never more jaundiced than it is today and it is not likely to improve unless doctors start paying at least as much attention to how the public sees them as they do to the Wednesday afternoon golf game."

The above is our nomination for the quote of the week. It comes from Frank G. Slaughter's annual contribution to the Journal of the Florida Medical Association. The Jacksonville physician-author investigated the death of Good Old Doc and has handed down an indictment of the organized medical profession.

Is it any wonder Good Old Doc died in the eyes of much of the public, he asks, when the medical profession has fought "a stubborn rear guard action against significant socio-economic reform, social security, group practice, to name but a few—and lost every battle?"

Dr. Slaughter weighs the unequaled scientific progress of the last 20 years against the rapidly deteriorating patient-doctor relationship of trust and affection that once existed. It is an unbalancing viewpoint.

Certainly it is true that Good Old Doc didn't know as much precise medicine as Brisk New Doc, but Dr. Slaughter suggests some of the old codger's human qualities should be retained if the public is not to regard his physician as just another tradesman after his hard-earned money.

The Journal article offers a grim alternative for our busy doctors. Writes Dr. Slaughter: "In effect, private medical practice seems to be digging its own grave, for if the sick man cannot admire, even revere, his private doctor, he might as well have one furnished by the government—and probably will."

That is not an appealing answer, but the question is a real one.

Reprinted from the editorial page of The Miami Herald, January 4, 1967.

Good Old Doc's Busier Than Ever

It is not my custom to write, willy-nilly, letters to the editor. However, today's copy of The Herald contained on the editorial page a morsel entitled: "In Memory of Good Old Doc." This comment is based upon the annual contribution of Dr. Frank G. Slaughter to the December (1966) issue of the Journal of the Florida Medical Association. I cannot let it go unchallenged.

Dr. Slaughter is a journalist, and a good one. He has not participated in active practice of medicine or surgery for many years. He is a widely known and highly respected author of several very successful novels, many of which I have read and enjoyed. But, in this Christmas editorial to the Journal, he apparently is expressing an opinion obtained from some of his journalistic friends, or giving a personal statement of attitude. I cannot see that it is otherwise documented.

Paragraph four of your comment, not in quotation marks, states: "Dr. Slaughter weighs the unequaled scientific progress of the last 20 years against the rapidly deteriorating patient-doctor

relationship of trust and affection that once existed. It is an unbalancing viewpoint."

Obviously, as a corollary of improved scientific advances and the use of precision equipment and methods, it is inevitable that the attitude of the physician toward his patient is somewhat more objective than formerly. Very seldom does the "old codger" or the "young codger," (classified by Dr. Slaughter as "Good Old Doc" and "Good New Doc"), find it necessary to sit up all night at home with inadequate facilities, reassuring the patient with "acute indigestion."

To the contrary, the patient is usually transferred to a modern hospital where, with modern equipment, it is possible to determine whether the pain and "indigestion" are caused by an acutely inflamed appendix, a coronary thrombosis or a beginning pneumonia. Under these circumstances it has been my observation that "human qualities" are retained by the physician, who has the responsibility.

Regardless of socio-economic reform and other modern advances, there is great need and demand for the competent private physician. The majority of the American people love and trust their individual physician, although recent publications indicate distrust of the profession at large.

Why is your doctor busy? He is attempting to keep abreast of rapidly advancing knowledge in his field of the profession and to remain able to serve his patient efficiently. Indeed, many of them have found it necessary to discontinue the "Wednesday afternoon golf game," which you mention in paragraph one. Other things seem more important, and there is very little time for leisure. You will find, particularly among the younger, well-trained physicians, a serious purpose and intellectual curiosity concerning the fundamentals of good medicine. They know that theirs is a wonderful heritage, and they wish to prove worthy of it.

Do you feel that Good Old Doc is dead? Whom will you call if someone dear to you is in need of the care and management of an acute or grave illness requiring the skill and competence of somebody well trained in modern medical or surgical technology? "The question is a real one."

WARREN W. QUILLIAN, M.D.

Reprinted from The Miami Herald, January 10, 1967.

Hill Crest
HOSPITAL
(Formerly Hill Crest Sanitarium)

7000 5TH AVENUE SOUTH
Box 2896, Woodlawn Station
Birmingham, Alabama 35212
Phone: 205 - 595-1151

A patient centered independent hospital for intensive treatment of nervous disorders . . .

Hill Crest Hospital was established in 1925 as Hill Crest Sanitarium to provide private psychiatric treatment of nervous or mental disorders. Individual patient care has been the theme during its 41 years of service.

Both male and female patients are accepted and departmentalized care is provided according to sex and the degree of illness.

In addition to the psychiatric staff, consultants are available in all medical specialities.



MEDICAL DIRECTOR:
James A. Becton, M.D., F.A.P.A.

CLINICAL DIRECTORS:
James K. Ward, M.D., F.A.P.A.
Hardin M. Ritchey, M.D., F.A.P.A.

HILL CREST is a member of:
AMERICAN HOSPITAL ASSOCIATION . . .
. . . NATIONAL ASSOCIATION OF PRIVATE PSYCHIATRIC HOSPITALS . . .
ALABAMA HOSPITAL ASSOCIATION . . .
BIRMINGHAM REGIONAL HOSPITAL COUNCIL.
Hill Crest is fully accredited by the Joint Commission on Accreditation of Hospitals.

Hill Crest
HOSPITAL
BIRMINGHAM, ALABAMA

DIURESIS



MERCUHYDRIN®
(meralluride injection)

Twenty years ago the publication of "A System for the Routine Treatment of the Failing Heart"[1] established a schedule of diuretic therapy as a primary factor in the treatment of acute congestive failure. With emphasis upon daily injections of Mercuhydrin (meralluride injection) until dry weight was obtained, Gold, et al. achieved a 40% increase in improvement, in ⅓ the time, over other methods then current. Today, most medical texts continue to recommend parenteral mercurials in acute congestive failure when prompt diuresis is indicated.

Recently Modell[2] has stated: "The mercurial diuretics are the injectable diuretics of choice since they are the most potent as well as the most dependable. Their toxicity is not an important consideration either by comparison with other potent diuretics or in relation to the seriousness of the conditions in which they provide such excellent relief."

LAKESIDE

IN BRIEF

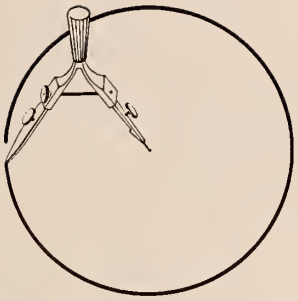
Mercuhydrin is indicated in edema of cardiac or hepatic origin and in the nephrotic syndrome; it is contraindicated in acute nephritis and in anuric or oliguric states. *The usual adult dose is one to two cc. daily or every other day until "dry weight" is obtained.* Sensitivity is rare but small initial doses are advised to minimize potential reactions; vertigo, fever, and rash have occurred. Overdosage may produce electrolyte depletion, muscle cramps, and G. I. reactions. Supplied: 1 cc. and 2 cc. ampuls in boxes of 12, 25 and 100; 10 cc. rubber capped, multiple-dose vials (intramuscular or subcutaneous use only) in boxes of 6 and 100.

1. Gold, Harry, *et al.: A System for the Routine Treatment of the Failing Heart,* The American Journal of Medicine, Vol. III, No. 6:665-692 (Dec.) 1956.

2. Modell, Walter: *Drugs of Choice 1966-1967,* p. 97, 1966.

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201

Need an office wing?



Consult an architect!

Need an extension?



Call the phone company!

Need optical services?

GUILD Rx OPTICIANS ®

Call on an expert —

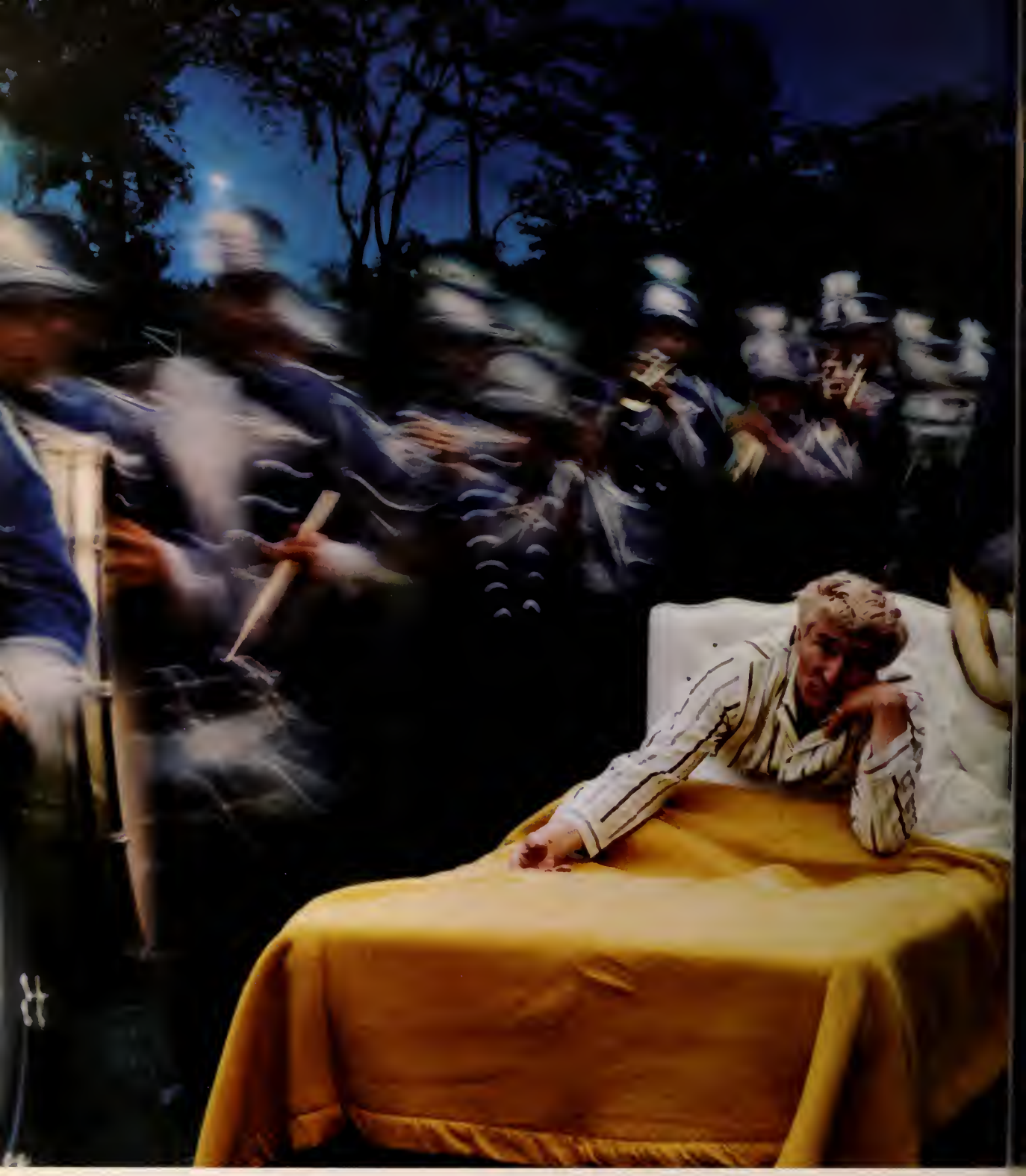
YOUR GUILD OPTICIAN!

Specialized services demand specialized knowledge. That's why an architect is consulted when you want the construction you contemplate to be properly planned. It's why you call the phone company when you want your telephone service extended or revised . . . and it's why you should call on your Guild Optician for optical services of any kind.

It's not just by accident that the Guild Optician is an expert. His qualifications are based on knowledge and experience, his will to serve the doctor, his ability to handle not only the routine problems of after-service for your patients, but also the unusual.

When you write a prescription, above all you expect to have that Rx properly filled so the patient obtains the full benefit of your professional services. You also expect to have your patient receive after-service for the life of his glasses. That's why it's wise to call on an expert — your Guild Optician. *Guild of Prescription Opticians of Florida.*

USING GUILD SKILLS AND EXPERIENCE TO SERVE YOUR PATIENTS



when he just can't sleep

Tuinal

Sodium Amobarbital and Sodium Secobarbital

(One-Half Sodium Amobarbital and One-Half Sodium Secobarbital)



Tuinal helps wakeful patients fall asleep fast, stay asleep all night.

Indications: Tuinal, comprised of equal parts of Seconal® Sodium (sodium secobarbital, Lilly) and Amytal® Sodium (sodium amobarbital, Lilly), is indicated for prompt and moderately long-acting hypnosis.

Contraindications: Barbiturates should not be administered to anyone with a history of porphyria, nor should they be given in the presence of uncontrolled pain, because excitement may result.

Warning: May be habit-forming.

Precautions: Tuinal should be used cautiously in patients with decreased liver function, since prolongation of effect may occur.

Adverse Reactions: Idiosyncrasy, such as excitement, hangover, or pain, may appear. Hypersensitivity reactions occur in some patients, especially in those with asthma, urticaria, or angioneurotic edema.



Dosage: 1½ to 3 grains at bedtime.

Supplied: ¾, 1½, and 3-grain Pulvules®.

Additional information available to physicians upon request.
Eli Lilly and Company • Indianapolis, Indiana 46206

Lilly

700196

Look how many ways

Thorazine®

brand of

chlorpromazine

can help

	Tranquilizer	Potentiator	Antiemetic
Agitation	●		
Alcoholism	●		●
Anxiety	●		
Cancer patients	●	●	●
Severe neurodermatitis	●		
Drug addiction withdrawal symptoms	●		●
Emotional disturbances (moderate to severe)	●		
Nausea & vomiting	●		●
Neurological disorders	●		
Obstetrics	●	●	●
Pain	●	●	●
Pediatrics	●	●	●
Porphyria	●	●	
Psychiatric disorders	●		
Hiccups—refractory	●		
Senile agitation	●		
Surgery	●	●	●
Tetanus	●	●	

'Thorazine' is useful as a specific adjuvant in the above named conditions.

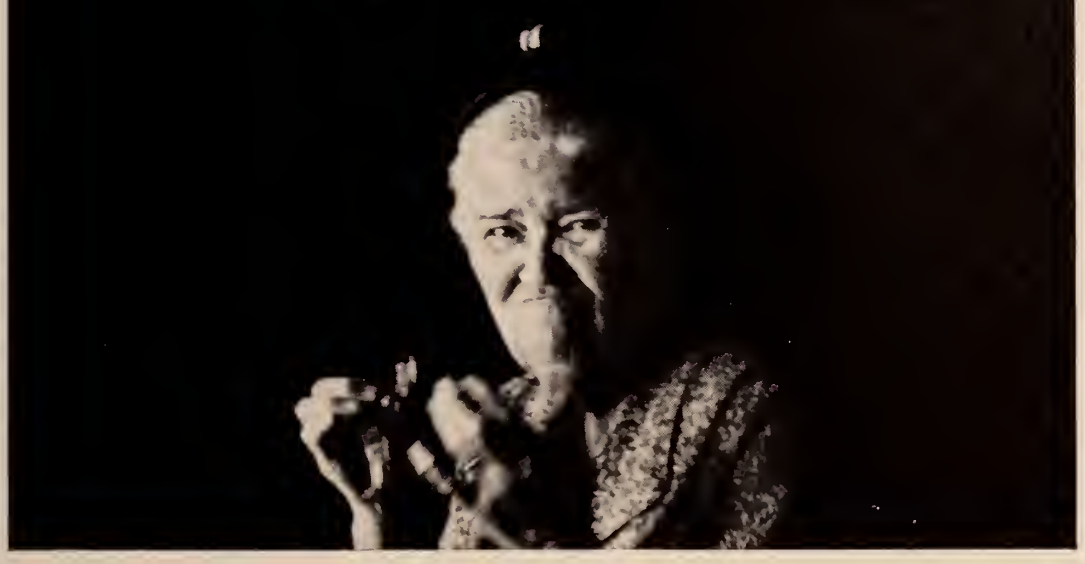
The following is a brief precautionary statement. Before prescribing, the physician should be familiar with the complete prescribing information In SK&F literature or *PDR*. *Contraindications:* Comatose states or the presence of large amounts of C.N.S. depressants. *Precautions:* Potentiation of C.N.S. depressants may occur (reduce dosage of C.N.S. depressants when used concomitantly). Antiemetic effect may mask other conditions. Possibility of drowsiness should be borne in mind for patients who drive cars, etc. In pregnancy, use only when necessary to the welfare of the patient. *Side Effects:* Occasionally transitory drowsiness; dry mouth; nasal congestion; constipation; amenorrhea; mild fever; hypotensive effects, sometimes severe with I.M. administration; epinephrine effects may be reversed; dermatological reactions; parkinsonism-like symptoms on high dosage (in rare instances, may persist); weight gain; miosis; lactation and moderate breast engorgement (in females on high dosages); and less frequently cholestatic jaundice. Side effects occurring rarely include: mydriasis; agranulocytosis; skin pigmentation, lenticular and corneal deposits (after prolonged substantial dosages).

For a comprehensive presentation of 'Thorazine' prescribing information and side effects reported with phenothiazine derivatives, please refer to SK&F literature or *PDR*.

Smith Kline & French Laboratories SK&F

IRON DEFICIENCY

ANEMIA



Imferon®
(iron dextran injection)

There's as much iron . . . 250 mg. . . . in a 5 cc. ampul of Imferon (iron dextran injection) as in a pint of whole blood. When iron deficient patients are intolerant of oral iron . . . or orally administered iron proves ineffective or impractical . . . or if the patient cannot be relied upon to take oral iron as prescribed, Imferon (iron dextran injection) dependably increases hemoglobin and rapidly replenishes iron reserves. Precise dosage is easily calculated.

LAKESIDE

IN BRIEF: ACTION AND USES: A single dose of Imferon (iron dextran injection) will measurably begin to raise hemoglobin and a complete course of therapy will effectively rebuild iron reserves. The drug is indicated only for specifically-diagnosed cases of iron deficiency anemia and then only when oral administration of iron is ineffective or impractical. Such iron deficiency may include: patients in the last trimester of pregnancy; patients with gastrointestinal disease or those recovering from gastrointestinal surgery; patients with chronic bleeding with continual and extensive iron losses not rapidly replenishable with oral iron; patients intolerant of blood transfusion as a source of *iron*; infants with hypochromic anemia; patients who cannot be relied upon to take oral iron.

COMPOSITION: Imferon (iron dextran injection) is a well-tolerated solution of iron dextran complex providing an equivalent of 50 mg. in each cc. The solution contains 0.9% sodium chloride and has a pH of 5.2-6.0. The 10 cc. vial contains 0.5% phenol as a preservative.

ADMINISTRATION AND DOSAGE: Dosage, based upon body weight and Gm. Hb/100 cc. of blood, ranges from 0.5 cc. in infants to 5.0 cc. in adults, daily, every other day, or weekly. Initial test doses are advisable. The total iron requirement for the individual patient is readily obtainable from the dosage chart in the package insert. Deep intramuscular injection in the upper outer quadrant of the buttock, using a Z-track technique, (with displacement of the skin laterally prior to injection), insures absorption and will help avoid staining of the skin. A 2-inch needle is recommended for the adult of average size.

SIDE EFFECTS: Local and systemic side effects are few. Staining of the skin may occur. Excessive dosage, beyond the calculated need, may cause hemosiderosis. Although allergic or anaphylactoid reactions are not common, occasional severe reactions have been observed, including three fatal reactions which may have been due to Imferon (iron dextran injection). Urticaria, arthralgia, lymphadenopathy, nausea, headache and fever have occasionally been reported.

PRECAUTIONS: If sensitivity to test doses is manifested, the drug should not be given. Imferon (iron dextran injection) must be administered by deep intramuscular injection only. Inject only in the upper outer quadrant of the buttock, not in the arm or other exposed area.

CONTRAINDICATIONS: Imferon (iron dextran injection) is contraindicated in patients sensitive to iron dextran complex. Since its use is intended for the treatment of iron deficiency anemia only it is contraindicated in other anemias.

CARCINOGENICITY POTENTIAL: Using relatively massive doses, Imferon (iron dextran injection) has been shown to produce sarcoma in rats, mice and rabbits and possibly in hamsters, but not in guinea pigs. The risk of carcinogenesis, if any in man, following recommended therapy with Imferon (iron dextran injection) appears to be extremely small.

SUPPLIED: 2 cc. ampuls, boxes of 10; 5 cc. ampuls, boxes of 4; 10 cc. multiple dose vials.

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201

CONVENTION PRESS

2111 NORTH LIBERTY ST.
JACKSONVILLE, FLORIDA
32206

QUALITY BOOK PRINTING
PUBLICATIONS BROCHURES

WHATEVER your first requisites may be, we always endeavor to maintain a standard of quality in keeping with our reputation for fine work —and at the same time provide the service desired. Let CONVENTION PRESS help solve your printing problems by intelligently assisting on all details.

A COMPLETE BUSINESS SERVICE

Professional Management

FOR THE MEDICAL AND DENTAL PROFESSIONS

PM FLORIDA

233 Fourth Avenue, N.E.
St. Petersburg, Florida
Phone 898-5074

1855 Hillview Street
Sarasota, Florida
Sarasota Phone 958-4493
4771 Bilmark
Ft. Myers, Florida
Ft. Myers Phone 936-3162

PROFESSIONAL MANAGEMENT FOR PHYSICIANS AND DENTISTS · since 1932 · PM ©

417 Executive Building
1175 N.E. 125th St.
Miami, Florida 33125
Dade Phone 751-2101
Broward Phone 523-0286

Affiliates of Black & Skaggs Associates
Battle Creek, Michigan

Thomas B. Slade — Fifty Years in Florida — J. Beatty Williams

Surgical SUPPLY COMPANY

AMERICAN SURGICAL TRADE ASSOCIATION · ASTA

HAMILTON — RITTER — SKLAR — BURDICK
CLAY-ADAMS — B-D — BARD-PARKER — TYCOS
BAUM — WELCH-ALLYN AND MANY, MANY OTHERS

Ph. 355-8391 — P. O. Box 2580 — 1050 W. Adams Street — Jacksonville, Fla. 32203



P. L. DODGE MEMORIAL HOSPITAL

M. G. ISAACSON, M.D.
Medical Director
1861 N.W. South River Drive
Miami, Florida
Phone 379-1448

A nonprofit-voluntary hospital for the treatment of nervous and mental disorders and the problems of drug addiction and alcoholic habituation. Modern diagnostic and treatment procedures including—Psychotherapy, Insulin, & Electroshock, when indicated. Adequate facilities for recreation and out-door activities. Admissions are made without regard to race, color or national origin.

Information on request

Member NAPPH, American Psychiatric Assn., & American Hospital Assn.



Letters

Medical Education

November 15, 1966

Dr. Arthur F. Schiff
1912 S. W. 7th Avenue
Miami, Florida
Dear Dr. Schiff:

I read with great interest your editorial "I Could Not Believe" in the November issue of the Journal. I believe you are making a very important point which not only refers to attitudes in the medical and nursing professions, but also to our society in view of the highly materialistic orientation of the population of the United States and of the globe as a whole.

It is very difficult to conceive of an educational program which could alter that attitude. Nevertheless, we have to make every possible attempt to correct the situation.

The reason I am writing to you is to find out whether you have any constructive suggestion how one can approach the problem. As you know, medical schools have a tendency to neglect the economic aspect of medicine, inasmuch as we mainly concentrate on scientific basis and the human relationship problems of the practice of medicine. Maybe we should introduce some of the economic and philosophic issues which relate to medicine.

Emanuel Suter, M.D., Dean
College of Medicine
University of Florida
Gainesville

November 17, 1966

Dear Dr. Suter:

Thank you for your kind and generous letter of the 15th concerning my editorial "I Could Not Believe." I have been pleasantly surprised by the many letters I have received concerning it. Evidently, people do read the Journal.

Perhaps some may consider the editorial ineffectual and nugatory in that I described an existing condition of which others are equally aware, but have offered no remedy for the condition. I still felt that putting my thoughts into print might stimulate some. It has.

Any educational program, to mitigate the situation such as we find today, must begin early and in the home. I believe it was that madman, Adolf Hitler, in one of his more lucid moments and with rare insight, who said, "Give me a child until the age of five and you can have him for the rest of his life." Certainly, the psychiatrists realize the extreme value of the first few formative years.

Good manners, good habits, gentility, compassion, kindness, respect for one's fellow man—Shaw, Pygmalion, and Galatea notwithstanding—are not automatically learned or encompassed when an individual reaches 18, 20 or even 25. A semester or two or three in college or medical school certainly will not instill into a lout one or all of these qualities. Of course, if a school is lucky enough to obtain such an inspired and inspiring teacher such as the late George Sarton who taught the History of Science course at Harvard, perhaps something might rub off onto the rudest fellow.

In answer to your question, however, concerning "any constructive suggestions how one can approach the problem," I answer we must start with the young, our own children, and teach them day by day, hour by hour, minute by minute, in the bedroom, in the living room, at the dinner table, the proper values by which to live. If we do our job well, these teachings will be passed on to their children, our grandchildren, and we will have achieved some small measure of immortality. Such is the nature of the problem that I do not think it can be corrected in a classroom dedicated to formal lectures.

Arthur F. Schiff, M.D.
Miami

Medicare

October 18, 1966

Dear Editor:

I have been reading with interest and amusement the recent editorials on Medicare. With the program now more than three months old, editorial writers are expressing bewilderment that a mass influx of elderly patients into the nation's hospitals has not occurred. Our community has an unusually high percentage of elderly people in its population makeup, but since the onset of the program our hospitals find that there has been no appreciable increase in the percentage of patients 65 and over occupying hospital beds. This leads me to believe that this group of patients was being ade-

quately cared for under existing programs. Elderly people were not being neglected, nor left to suffer at home, as the politicians would have had us believe.

Abuses of the program predictably will appear shortly. Diagnostic admissions will increase in number, and hospital stays will lengthen as the "something for nothing" philosophy begins to prevail. I write simply to emphasize that it is a credit to the medical profession that this influx did not occur as predicted.

Jack A. MacCris, M.D., Chairman
Council on Medical Economics

State Societies

Medical World News in its August 26, 1966 issue presents a thoughtful analysis of state medical societies, but makes statements in regard to state medical journals which merit discussion.

State journals no longer depend on annual conventions for the bulk of their scientific articles, and usually publish only convention papers that are especially suited for reading. State journals cannot and do not compete with national journals for scientific articles, and fortunately do not receive many papers which have been rejected elsewhere.

Variations of disease and practice form the basis for the true function of state journals. We perform a vital service in presenting the local picture.

Incidentally, in "Editor's Choice—Reports of clinical articles from leading medical journals" in the same issue, two of the four abstracts are from state medical journals. And rightfully so. We are proud of the scientific content of our journals.

Frank B. Ramsey, M.D.
Editor
Journal of the Indiana
State Medical Association

In references to the Florida Medical Association and to the state of Florida, some serious inaccuracies appear in the article. Specifically, the FMA has closer to 5,500 members than 15,500 as MWN stated. Approximately 1,300 of these 5,500 physicians usually attend the organization's annual meeting. We believe this is an excellent record considering the geography of the state.

The name of our primary publication is the Journal of the Florida Medical Association, rather than the Bulletin, as stated by MWN. There is little problem in obtaining quality scientific contributions to the Journal, as opposed to the article's incorrect inference. In point of fact, the FMA Journal rejects a significant number of such contributions.

Samuel M. Day, M.D.
Public Relations Officer
Board of Governors
Florida Medical Association

I am very strong in my feeling that the state journal fills a real need and that the articles are not "dregs." As an example, our entire September issue is devoted to a symposium presented at the University of South Dakota Medical School. This symposium, in my opinion, is an excellent one.

Further, we receive numerous scientific papers from the Mayo Clinic and from the Ochsner Clinic. We also receive the presentations made at the scientific session of the annual meeting of the South Dakota State Medical Association.

Robert E. Van Demark, M.D.
Editor
South Dakota Journal of Medicine

To charge the state societies with a sweeping indictment of dismal failure in a succession of social and economic events not of medicine's making and to ignore the substantial and considerable influence which they have successfully exerted in behalf of patients and physicians is as inaccurate as it is unfair. However competent or inept, the state society has been, is now, and will remain the sovereign provincial voice of the physician as he identifies himself geographically from among others among his American colleagues and as he interprets his difficult, demanding, and complex role of unique responsibility in a dynamic circumstance.

Rowland B. Kennedy
Executive Secretary
Mississippi State Medical
Association

[MWN's *article reported on the opinions of some physicians as expressed in recent polls, such as the one conducted by the Illinois State Medical Society. By no means does the article represent the magazine's judgment on the issues. As Dr. Ramsey points out,* MWN *regularly features the work of state societies and their journals, not only in* Editor's Choice *but also in other departments and news stories. In a recent issue, Dr. Fishbein referred to "the proud tradition of our state societies," summing up* MWN's *respect for their continuing achievements.*—ED. MWN]

Reprinted from Letters to the Editor, Medical World News, Oct. 14, 1966.

new from Ames
5 basic uro-analytical facts in 30 seconds



Labstix®

BRAND REAGENT STRIPS

...broadest urine screening possible from a single reagent strip

Urine test results with LABSTIX Reagent Strips can represent significant guides to differential diagnosis or therapy in many conditions. An unexpected "positive" may enable you to detect hidden pathology—long before more recognizable symptoms become evident. Negative results, which permit you to rule out abnormalities in a broad clinical range, can serve as baseline values for reference in future examinations. The 5 colorimetric test areas encompassed on LABSTIX Reagent Strips are:

pH—values are read numerically in the essential range of pH 5 to pH 9.

Protein—results are read either in the "plus" system or in mg. % in amounts approximating "trace," 30, 100, 300, and over 1000 mg. %.

Glucose—provides a "Yes-or-No" answer for urine "sugar spill."

Ketones—detects ketone bodies in urine—**both** acetoacetic acid and acetone. Reacts with as little as 5 to 10 mg. % of acetoacetic acid.

Occult Blood—specific test for intact red cells, hemoglobin or myoglobin. Results are read as negative, small, moderate or large amounts.

Now a Clear Reagent Strip of Firm Construction

...facilitates handling during testing procedure. Excellent color contrast made possible by the clear plastic strip, together with the clearly defined color charts provided, permits precise, reproducible colorimetric readings in all 5 test areas. A more definitive interpretation of uro-analytical facts is made possible.

Available: LABSTIX Reagent Strips, bottles of 100 (color charts are supplied with each bottle).

Ames Company, Inc., Elkhart, Indiana

AMES

08165

Estomul does what standard anticholinergics fail to do—it provides a continuous climate for ulcer healing, eliminating the peaks and valleys of ordinary therapy. It is a comprehensive formulation providing sustained antisecretory effect on gastric activity. A recent study[1] reported a 56% satisfactory response with a maintenance schedule of Estomul in patients refractory to all previous medication. In less difficult peptic ulcer patients, a second study[2] noted a 94% satisfactory response. Both studies confirmed this clinical improvement radiologically. And both reported unusually prolonged reduction of basal secretion. With a maintenance course of Estomul therapy you can provide this continuous climate for healing in your own peptic ulcer patients.

A continuous climate for ulcer healing

(not simply episodic reduction of secretion or motility)

Estomul®



Tablets

Each swallow tablet contains: orphenadrine hydrochloride, 25 mg.; bismuth aluminate, 25 mg.; magnesium oxide, 45 mg.; aluminum hydroxide—magnesium carbonate (as co-precipitate), 500 mg.

Good-Tasting Liquid

Each tablespoon (15 cc.) contains: orphenadrine hydrochloride, 25 mg.; bismuth aluminate, 50 mg.; aluminum hydroxide—magnesium carbonate (as co-precipitate), 918 mg.

Dosage: 1 or 2 tablets or 1 or 2 tablespoons 3 times daily.

Supplied: In bottles of 100 tablets or 12 fluid oz..

Side Effects: Doses in excess of 6 tablets or 6 tablespoons daily may produce dryness of mouth or blurring of vision. Other possible side actions include: tachycardia, palpitation, urinary hesitancy or retention, dilatation of the pupil, increased ocular tension, weakness, nausea, vomiting, headache, dizziness, constipation, drowsiness, urticaria and other dermatoses. Infrequently, an elderly patient may experience some degree of mental confusion.

Contraindicated: In glaucoma, pyloric or duodenal obstruction, stenosing peptic ulcers, prostatic hypertrophy or obstruction at the bladder neck, achalasia and myasthenia gravis.

References: 1. McHardy, G. G., Judice, R. C., McHardy, R. J., and Cradic, H.: Southern Med. J. 59:459 (April) 1966. 2. Slanger, A.: Western Med. 6:205, 1965.

Riker Riker Laboratories • Northridge, California 91324



Government News

Physicians Not Obligated To Answer Medicare Survey

A medicare survey being conducted by the Bureau of the Census of the United States Department of Commerce has recently caused questions in Florida concerning the authorization for the survey, the failure of the responsible federal agency to notify physicians before interviewers contacted them and the propriety of the opinions expressed by one or more of the interviewers.

William Byrd, Director of the Professional Relations Department of the Social Security Administration, was contacted by the American Medical Association law department to ascertain the purpose of the survey and the nature of the instructions given to the interviewers responsible for the sampling.

Mr. Byrd informed the AMA that the survey forms were devised by the SSA in July 1966. The survey is to be made by sampling the population enrolled in the medicare programs and is to extend for a period of one year. SSA contracted with the Bureau of the Census to train interviewers and to conduct the survey so that information on the utilization of the services for which payment is provided under the medicare programs would be available more rapidly than retrieval from their records system permits, thus enabling the Agency to make recommendations for policy or legislative changes that the actual operation of the programs might suggest. The authority and responsibility for conducting such studies and developing recommendations to be submitted to Congress are set forth in section 1875 of the medicare law.

The original instructions prepared by the SSA for the interviewers stated that they were to contact beneficiaries. The survey was to be made through interviews at the homes of the enrolled individuals. At the time of the first visit to the home of an enrollee, the interviewer leaves one of the survey forms so that a monthly diary of the utilization of services covered under the medicare programs can be kept. Each month the interviewer picks up the form left at the last visit and leaves another form. The interviewers are instructed to refer any beneficiary questions relating to medicare to the SSA district offices.

The instructions given to the interviewers contain a strict and specific exclusion of physician contacts. The instructions do authorize the interviewers to contact hospitals if it becomes necessary for the purpose of completing one of the survey forms. For this reason, physicians contacted by interviewers would have no obligation to supply the requested information. The AMA suggests that any complaints received from physicians relating to this survey be brought to the attention of the Social Security Administration.

Hospital-Based Physicians Subject of SSA Study

The Social Security Administration has engaged the Columbia University School of Public Health and Administrative Medicine to study the extent of changes that may have occurred in the relationship between hospital-based physicians and hospitals since medicare was enacted, Robert M. Ball, Commissioner of Social Security, announced recently. Ball said the study should provide information needed to evaluate medicare policies and to serve as a basis for administrative and legislative planning.

The Social Security Commissioner explained that prior to medicare, charges for the services of hospital-based physicians-radiologists and pathologists, for example—usually were combined with their other hospital expenses in the hospital's bill to the patient. Under medicare separate charges are necessary, since physician services are paid for under one part of the program and hospital services under another.

Ball noted that the medicare billing procedure does not require any change in hospital-physician relations but that it has nevertheless led to changes in some institutions, particularly where hospital-based physicians seek to become independent of the institution. Some plan to do their own billing, Ball said, while others are considering lease arrangements under which they could carry out their specialties on hospital premises. Ball stressed that the Social Security Administration will play no part in the negotiations between hospitals and the doctors who want to change their arrangements.

The Columbia staff will review the status of the two largest hospital-based physician groups, radiologists and pathologists, prior to the beginning of the medicare program on July 1 and following that date. The study will include a nationwide sample of hospitals and several in-depth case studies of selected hospitals.

Ball said that the study will be conducted by a full-time research faculty group in the School of Public Health of Columbia University, under the direction of Frank van Dyke, Professor of Administrative Medicine.

Medicare Changes Recommended By SSA Commissioner Ball

More than six million older persons received hospital and medical benefits during the first six months of the medicare program, at a cost of nearly $1 billion.

Social Security Commissioner Robert M. Ball expressed satisfaction with the overall operations of the health insurance program for the elderly to date; but warned of bed shortages in the nation's capital, in various New England states, and in most rural areas when a new medicare benefit of nursing home care went into effect January 1. He estimated that 50,000 to 60,000 beds would be needed for extended care in nursing homes.

The Commissioner recommended a number of changes in the program. He urged that medicare benefits, which apply to persons 65 or older, be extended to 1.3 million disabled persons, and said the major improvement needed in the Social Security program is an "across-the-board" increase in benefits. Overall benefits to be paid out in 1966 will rise from $21 billion in 1966 to $25 billion in 1967, he noted. It has been announced President Johnson will seek a boost of about 10% in Social Security benefits in the next Congress.

Ball's report on the first six months of medicare included the following information:

- About 2.5 million elderly persons received free hospital care and 3.5 million benefited from medical services.
- Since medicare began July 1, 1966, hospital occupancy increased 5%, as expected. Thirty per cent of all hospital beds were occupied by those 65 or older at the end of 1966.
- About 6,700 hospitals now are participating in medicare. About 250 hospitals were excluded because they did not meet minimum standards, and 75 hospitals because of racial discrimination.



Phenaphen with Codeine

the only leading compound analgesic that calms instead of caffeinates

Each capsule contains:

Phenobarbital (¼ gr.)	16.2 mg.
(Warning: may be habit forming)	
Aspirin (2½ gr.)	162.0 mg.
Phenacetin (3 gr.)	194.0 mg.
Hyoscyamine sulfate	0.031 mg.
Codeine phosphate	¼ gr. (No. 2), ½ gr. (No. 3), 1 gr. (No. 4)
(Warning: may be habit forming)	

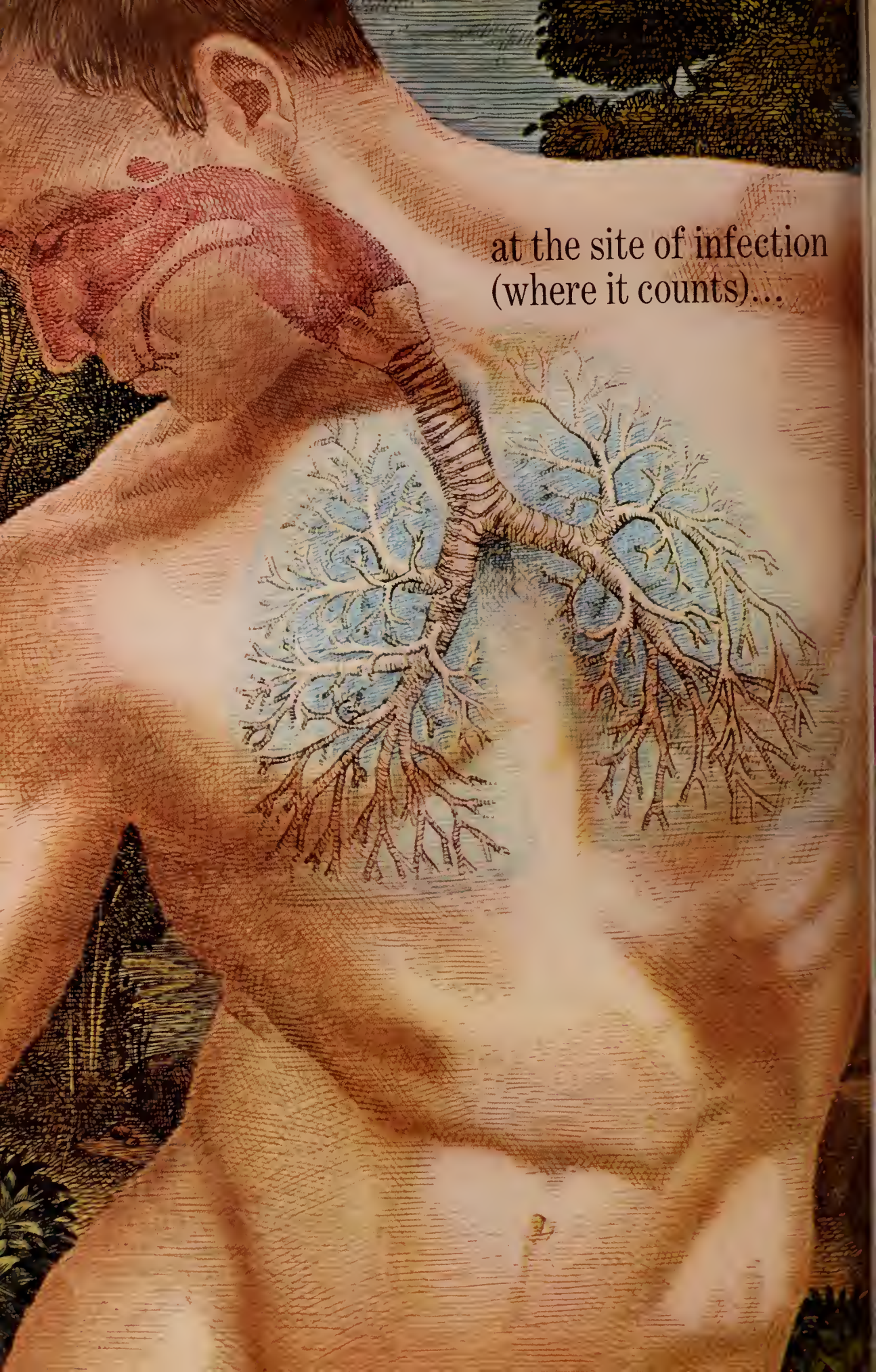
Contraindications: Hypersensitivity to any ingredient.

Precautions: As with all phenacetin-containing products, avoid excessive or prolonged use.

Side Effects: Side effects are uncommon—nausea, constipation, and drowsiness have been reported.

A-H-ROBINS

A. H. ROBINS CO., INC., Richmond, Va. 23220


at the site of infection
(where it counts)...

Ilosone® provides more antibacterial activity than any other oral erythromycin

Acid stable, better absorbed... Ilosone produces faster, higher, more prolonged blood levels, even in the presence of food[1-3]

Because it is the most active form of oral erythromycin, Ilosone can help assure consistently greater antibacterial activity at the site of infection. Ilosone produces peak antibacterial blood levels two to four times those of other erythromycin preparations.[1,2] Not only are these levels attained earlier, but they are maintained for much longer periods. Even the presence of food does not seem to affect the activity of Ilosone.[1,3]

In the treatment of patients with bacterial infections susceptible to erythromycin, Ilosone has compiled an excellent therapeutic record. Since it exerts its greatest activity against gram-positive organisms, it is particularly useful in common respiratory and soft-tissue bacterial infections. Ilosone kills—not merely inhibits—streptococci, pneumococci, and more strains of staphylococci than any other macrolide antibiotic. This bactericidal action, coupled with the high antibacterial levels attained, makes Ilosone especially valuable in patients with low host resistance, such as infants, debilitated individuals, and diabetics.

Ilosone has shown no cross-resistance with penicillin and may be effective against organisms that have become resistant to that agent. Despite its high antibacterial activity, Ilosone has demonstrated a low incidence of side reactions. Blood dyscrasias, ototoxicity, and tooth staining have not been observed. Infrequent cases of drug idiosyncrasy, manifested by a cholestatic jaundice, have occurred, but there have been no known definite residual effects.

700121

Ilosone®
Erythromycin Estolate

Lilly

(See next page for prescribing information.)

Ilosone®/ the most active oral form of erythromycin

Description: Ilosone is the most active form of oral erythromycin that has been developed. Because it is stable in acid, well absorbed, and excreted in lesser amounts in the bile, it provides faster, higher, and longer-lasting levels of antibacterial activity (ABA) in the serum, even when taken with food, than do comparable doses of erythromycin.

Indications: Ilosone is indicated in infections caused by microorganisms sensitive to its action (especially staphylococci, hemolytic streptococci, and pneumococci). The drug is therefore useful in a high proportion of bacterial diseases encountered in clinical practice and particularly in the treatment of bacterial infections of the upper and lower respiratory tract and soft tissues.

In the treatment of acute bacterial pharyngitis and tonsillitis, this antibiotic has promptly eradicated the bacteria (streptococci) and has produced a parallel prompt clinical improvement. There have been no group A beta-hemolytic streptococci resistant to this preparation. In beta-hemolytic streptococcus infections, treatment should be maintained for ten days to prevent the development of rheumatic fever or glomerulonephritis.

Erythromycin estolate has proved to be very effective in pneumococcus pneumonia and in acute bronchitis with pneumococci on culture. Bronchopneumonia and otitis media in children have responded well to its use.

The antibiotic has been used very successfully in staphylococcus infections. Good therapeutic results have been obtained in soft-tissue infections, abscesses, cellulitis, carbuncles, wound infections, and furunculosis.

In serious staphylococcus infections, erythromycin preparations should be used only in combination therapy with other antimicrobial agents. As is the case with any treatment regimen used in these severe conditions, surgical procedures should be performed when indicated, and large dosages of the antimicrobial agents should be employed. In this fashion, Ilosone has been effective in staphylococcus pneumonia, osteomyelitis, septicemia, empyema, and meningitis.

Multiple 500-mg. doses of the drug have been useful in gonorrhea and syphilis. Since penicillin is the drug of choice for the treatment of syphilis and gonorrhea, erythromycin estolate should be employed for these infections only in patients with a history of penicillin allergy. Also, other infections due to susceptible bacteria in patients known to be hypersensitive to penicillin or other antibiotics may be considered for treatment with Ilosone.

Contraindications: Ilosone is contraindicated in patients with a known history of sensitivity to this drug and in those with preexisting liver disease or dysfunction.

Side-Effects: Data obtained from seven years' use of propionyl erythromycin ester and erythromycin estolate (Ilosone) indicate that hepatic dysfunction with or without clinical jaundice may occur during or following courses of therapy with the drug.

Changes in liver function tests in such cases have been indicative of intrahepatic cholestasis. The symptoms appear to be the result of a form of sensitization. The initial symptoms have appeared in some cases after a few days of treatment but generally have followed one or two weeks of continuous therapy or several courses of the drug. Symptoms reappear promptly if the drug is readministered to sensitive patients, usually within forty-eight hours. Eosinophilia was noted in peripheral blood counts. The findings readily subsided without apparent residual effects when treatment was discontinued. Recovery was delayed in one reported instance. The physician indicated in this case that either drug-induced jaundice or viral hepatitis may have been responsible for the findings.

In one clinical study involving ninety-three patients treated with the antibiotic, three cases of jaundice were observed and an additional eleven cases developed some changes in liver function tests. Three of the patients had abnormal liver function tests a second time on readministration of the drug.

Even though it is assumed that not all cases of jaundice have been reported, it seems clear that the number is small compared with the amount of drug that has been used. Reported cases have included persons in whom there had been administered other drugs known to be associated at times with hepatic side-effects and cases in which the presence of viral hepatitis or other disease may have been responsible for the findings. In some of the cases, associated gastro-intestinal symptoms simulated the colic of biliary tract disease. In other instances, clinical symptoms and results of liver function tests resembled findings in extrahepatic obstructive jaundice. It appears that the occurrence of jaundice after administration of Ilosone is infrequent, but further investigations are being made to estimate its incidence more accurately.

In those cases mentioned above in which jaundice appeared to be definitely related to use of the drug, laboratory findings were characterized by increased direct-reacting bilirubin, elevated alkaline phosphatase levels, negative or weakly positive cephalin flocculation and thymol turbidity tests, elevated serum glutamic oxalacetic transaminase levels, peripheral eosinophilia, and normal cholecystograms.

Individual idiosyncrasy seems evident since jaundice has been reported in other patients taking prolonged courses of medication. Patients with chronic infection have been given 1 to 2 Gm. of the drug daily for periods of two to six months, and patients with rheumatic fever have taken prophylactic doses of 0.5 Gm. daily for two years without difficulty. In one group of 144 patients who received the drug daily for two years, no jaundice was noted. It was of interest that members of six of the patients' families, who were not taking the drug, had episodes of jaundice during the study period.

Transaminase and serum alkaline phosphatase levels were determined in a group of fifty-four adults and children who took 250 mg. of Ilosone daily for an average of sixteen months for rheumatic fever prophylaxis. The results were compared with those of a similar group of forty-four patients who received penicillin. There were no cases of jaundice in either group. Elevation of SGPT and serum alkaline phosphatase levels during the course of treatment was observed in one patient treated with Ilosone and in two patients treated with penicillin. Seven other patients in the group receiving Ilosone and four others in the penicillin group showed elevations in one of the tests at some time during administration of the drugs.

Very satisfactory therapeutic results, without toxicity, were reported in 102 pediatric patients who received short-term (10 day) courses of Ilosone in the treatment of streptococcus infections. Results of liver function tests in these patients were comparable to those in a similar control group who had received penicillin.

Gastro-intestinal disturbances not associated with hepatic effects are observed in a small proportion of individuals as a result of a local stimulating effect of the medication on the alimentary tract; however, the normal intestinal gram-negative bacterial flora is not appreciably altered by erythromycin drugs.

Although allergic manifestations are uncommon with the use of erythromycin, there have been occasional reports of urticaria, skin eruptions, and, on rare occasions, anaphylaxis.

Administration and Dosage: Ilosone is administered orally.

Ilosone Pulvules®
Ilosone Chewable Tablets
Ilosone Drops
Ilosone, 125, for Oral Suspension

For infants and for children under twenty-five pounds of body weight, the usual dosage is 5 mg. per pound every six hours; for children twenty-five to fifty pounds, 125 mg. every six hours. (Tablets Ilosone Chewable should be chewed or crushed before swallowed with water.)

For adults and for children over fifty pounds, the usual dosage of Ilosone is 250 mg. every six hours.

For severe infections, these dosages may be doubled.

When larger doses are indicated, parenteral erythromycin therapy should be considered.

In the treatment of syphilis, the recommended total dosage is 20 to 30 Gm. given in divided doses for a period of ten to fifteen days. Close follow-up of the patient is necessary since erythromycin drugs have not had adequate evaluation in all stages of syphilis. Examinations of spinal fluid are recommended as part of the follow-up therapy.

For gonorrhea, 500 mg. four times a day for four days is recommended. In the treatment of gonorrhea, patients with suspected lesion of syphilis should have a dark-field examination before receiving antibiotics, and monthly serologic tests should be made for a period of three months.

How Supplied: Pulvules Ilosone, Capsules, N.F., 125 and 250 mg. (equivalent to base), in bottles of 24 and 100.

Tablets Ilosone Chewable, N.F., 125 mg. (equivalent to base) in bottles of 50.

Ilosone Drops, 5 mg. (equivalent to base) per drop, in 10-cc. size packages, with dropper calibrated at 25 and 50 mg.

Ilosone, 125, for Oral Suspension, N.F., 125 mg. (equivalent to base) per 5-cc. teaspoonful, in 60 and 150-cc.-size packages.

References: 1. Griffith, R. S., and Black, H. R.: Am. J. M. Sc., *247*:63, 2. Griffith, R. S., and Black, H. R.: Antibiotics & Chemother., *12*:398, 3. Hirsch, H. A., Pryles, C. V., and Finland, M.: Am. J. M. Sc., *239*:198, 19

Additional information available to physicians upon request.
Eli Lilly and Company, Indianapolis, Indiana 46206.

La

New
low-cost tetracycline/antifungal therapy

for broad-spectrum activity plus specific antifungal prophylaxis at significant patient savings

Whenever tetracycline is indicated in these candidates for Candida:

abetic patients



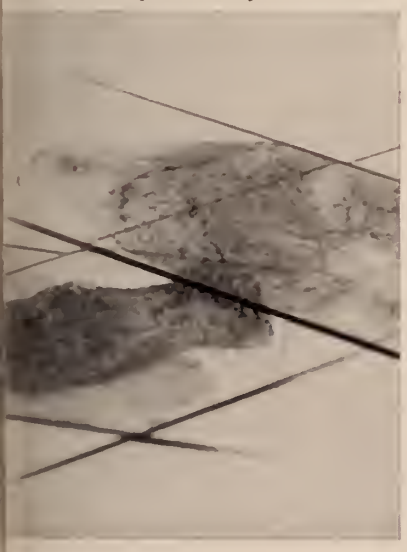
2. nonpregnant women with a history of recent or recurrent monilial vaginitis



3. elderly or debilitated patients



tients with a past history of moniliasis



5. patients on long-term tetracycline or corticosteroid therapy



PRESCRIBING INFORMATION. For complete information consult Official Package Circular. *Indicotions:* Infections of respiratory, gastrointestinal and genitourinary tracts and skin and soft tissues due to tetracycline-sensitive organisms, in patients with increased susceptibility to monilial infections. *Controindicotions:* The drug is contraindicated in patients hypersensitive to its components. *Wornings:* Photodynamic reactions have been produced by tetracyclines. Natural and artificial sunlight should be avoided during therapy. Stop treatment if skin discomfort occurs. With renal impairment, systemic accumulation and hepatotoxicity may occur. In this situation, lower doses should be used. Tooth staining and enamel hypoplasia may be induced during tooth development (last trimester of pregnancy, neonatal period and childhood.) *Precoutions:* Bacterial superinfections may occur. Infants may develop increased intracranial pressure with bulging fontanels. In gonorrheal therapy, serologic tests for syphilis should be conducted initially and monthly for 3 months. *Adverse Reoctions:* Glossitis, stomatitis, nausea, diarrhea, flatulence, proctitis, vaginitis, dermatitis, and allergic reactions may occur. *Usuol Adult Dosoge:* 1 capsule q.i.d. Continue for 10 days in Beta-hemolytic streptococcal infections. Administer one hour before or two hours after meals. *Supplied:* Capsules, bottles of 16 and 100. Each capsule contains tetracycline phosphate complex equivalent to 250 mg. tetracycline HCl activity and 250,000 units of nystatin. For Oral Suspension, 125 mg. tetracycline and 125,000 u. nystatin/5 ml., 60 ml. bottles.

BRISTOL

BRISTOL LABORATORIES
Division of Bristol-Myers Company
Syracuse, New York

Tetrex-F®

ch capsule contains tetracycline phosphate complex equivalent to tetracycline hydrochloride 250 mg. and nystatin 250,000 units.



Public Health Topics

Measles Eradication

The usual symptoms and signs of measles became apparent in B.E. and her brother when she was 10 years old. Neither had been seriously ill before and they were expected to recover uneventfully following a period of fever, rash and discomfort. The boy did. On the fourth day after the rash had appeared, B.E. was nearly afebrile; however, the next day her temperature again rose to 103 F. She became lethargic and later that day had the first convulsive seizure.

Three hours later when she arrived in the emergency room of the local hospital there were clonic convulsive movements of all extremities. A fading maculopapular eruption characteristic of rubeola was generally distributed over the body. Nuchal rigidity could not be detected. A lumbar puncture performed on admission revealed clear fluid. Laboratory examination showed 130 white blood cells per cubic millimeter, chiefly lymphocytes, and protein 51 milligrams per 100 milliliters. No organisms were detected in the smear, and culture for bacteria proved negative.

Seizures were controlled only temporarily. Convulsive movements recurred and persisted despite intensive medication. The temperature continued upward, eventually reaching 108 F. The heart rate increased to 160 per minute, with gallop rhythm. Neither the heart rate nor the blood pressure could be controlled adequately. When voluntary respiration no longer provided sufficient ventilation, the patient was placed in a respirator. In spite of heroic measures, she died approximately 36 hours following the first convulsion. Death was attributed to measles encephalitis; the diagnosis was supported by gross and microscopic findings at postmortem.

Post-measles encephalitis in this patient admittedly was unusually severe; however, the nonfatal cases must be ranked with phenylketonuria as a cause of permanent cerebral damage and institutional care for the life of the victim. Wide concern and much effort are being currently directed toward preventing the damages resulting from PKU. Post-measles encephalitis in all degrees of severity now can be effectively prevented with the means at hand. Vigorous control measures are indicated.

The less severe sequelae, not so dramatic perhaps, are of great importance because of frequency of occurrence. In Philadelphia, for each 1,000 reported cases of measles, one patient is admitted to the hospital with the complication of encephalitis. More than 10% of these die. There is no available measure of the minor cerebral damages which may transform potentially bright children into those with definite problems. The varied sequelae and morbidity resulting from an acute illness which attacks almost all of these patients create a challenge of high magnitude in disease prevention.

During recent months, emphasis has been upon the scientific knowledge capable of rapidly eradicating measles. There are, however, certain essential conditions in attainment of this goal:

1. Routine immunization should be provided for all infants approximately one year of age. This should be part of regular medical practice among children. While all parents are urged to obtain this care from their physician, the health departments direct particular attention to those who, for various reasons, do not do so.

2. Physicians having contacts with teachers or administrators in the schools should inform them of the need to encourage parents to obtain this protective treatment for their children. Each child upon entering school provides a record of immunizations; therefore, the teachers and administrators have a definite opportunity to enter into this activity and will realize the advantage of sharing in this responsibility as a means of preventing large scale school absences during epidemics of measles.

3. As the incidence of measles declines, the importance of reporting occurrences of the disease increases. The prompt reporting of all cases will be an essential part of the renewed efforts to control this disease.

4. A cluster of cases of measles will be the indication for vigorous community effort to increase promptly the percentage of children immunized. Every physician should aid by inoculating the greatest possible proportion of his patients. A prolonged epidemic may thus be cut short.

5. Massive community efforts to inoculate a high percentage of children susceptible to measles may warrant consideration as an initial effort to provide an adequate level of protection against the disease. This is an opportunity for leadership by members of the medical profession. Assistance of the local health department may be anticipated.

A few years ago eradication of poliomyelitis was only a dream; however, the goal has been virtually attained. There is now the opportunity, and the challenge, to eradicate a nearly universal disease which, in the aggregate, accounts for massive acute illness and tragic and irreparable sequelae scattered unpredictably among all population groups.

E. Charlton Prather, M.D., Director
Division of Epidemiology
Florida State Board of Health
Jacksonville

Emily H. Gates, M.D., Assistant Director
Encephalitis Research Center
Florida State Board of Health
Tampa



What can be done for Susan Jane To stop the runs and crampy pain?

Parepectolin for quick relief of acute diarrhea
...soothes colicky pain with paregoric
...consolidates fluid stools with pectin
...adsorbs irritants with kaolin, and protects intestinal mucosa

In children, Parepectolin may be used to control diarrhea promptly and prevent dehydration, until etiology has been determined. In some cases, Parepectolin may be all the therapy necessary.

Parepectolin®

Each fluid ounce of creamy white suspension contains:
Paregoric (equivalent)..... (1.0 dram) 3.7 ml.
Contains opium (¼ grain) 15 mg. per fluid ounce.
warning: may be habit forming
Pectin ..... (2½ grains) 162 mg.
Kaolin (specially purified).... (85 grains) 5.5 Gm.
(alcohol 0.69%)
Usual Children's Dose: One or two teaspoonfuls three times daily.

ROER

WILLIAM H. RORER, INC.
Fort Washington, Pa.



ARE YOU ALL SET?

93rd Annual Meeting

May 11-14

Americana Hotel

Bal Harbour

Soyalac

SOLVES THE PROBLEM

for the infant who requires a milk-free diet!



- Soyalac satisfies! Baby is happy, mother is grateful, doctor is gratified.
- The nut-like taste is pleasing. Infants readily accept this hypoallergenic formula that is completely fibre-free. An exclusive process results in a consistency much like milk.
- Soyalac is strikingly similar to mother's milk in composition and ease of assimilation. Clinical data furnish evidence of Soyalac's value in promoting normal growth and development.
- Excellent for regular infant feeding, too—and for growing children and adults.

Soyalac

Free Booklet and Samples

A request on your professional letterhead or prescription form will bring to you complete information and a supply of samples.

a product of

LOMA LINDA FOODS

MEDICAL PRODUCTS DIVISION

RIVERSIDE, CALIFORNIA

Mount Vernon, Ohio, U. S. A.

Ninth Annual County Medical Society Presidents and Secretaries Conference

The Ninth Annual Conference of County Medical Society Presidents and Secretaries, held in Orlando at the Robert Meyer Motor Hotel, January 28-29, was attended by representatives of 32 of the state's 43 local societies. Total registration was 186, an increase of approximately 48% above last year's registration.

President George S. Palmer opened the two day meeting noting that the attendance at the pre-conference legislative and medicine and religion workshops was the greatest it had been in several years, and expressing the desire that the conference would prove as interesting and informative as had those in the past.

Following his opening remarks, Dr. Palmer announced the fact that Dr. Ernest B. Howard, Assistant Executive Vice President of the American Medical Association, who was to give a presentation on the national medical scene, was unable to attend the conference because of a heavy snowfall in Chicago which caused a complete stoppage of all transportation.

Dr. Richard C. Dever, Miami, chairman of the FMA Scientific Council, spoke on scientific activities, reviewing briefly the activities of the four committees composing the Council.

Following Dr. Dever, those assembled heard Dr. H. Phillip Hampton, Tampa, Immediate Past President and chairman of the Florida Advisory Council on Heart Disease, Cancer and Stroke, speak on the regional programs concerning heart disease, cancer and stroke.

Next on the program was a medical economics panel moderated by Dr. Jack A. MaCris, St. Petersburg, chairman of the FMA Council on Medical Economics. Panelists included Dr. Robert E. Zellner, Orlando, Past President of the FMA, speaking on relative value studies; Dr. Fred A. Butler, Naples, chairman of the FMA Committee on Fee Schedules, whose topic was "Workmen's Compensation, Vocational Rehabilitation and the Crippled Children's Commission;" John F. Monahan, executive director of the Florida Hospital Association, speaking on Public Law 89-97, Title XVIII-A and, covering Title XVIII-B, Dr. Russell B. Carson, Fort Lauderdale, past chairman of the National Association of Blue Shield Plans and chairman of the FMA Committee on Scientific Work.

Following the panel presentation, Dr. Edward G. Haskell Jr., Tallahassee, chairman of the FMA Committee on State Legislation, spoke on the FMA state legislative program for the 1967 session of the Florida legislature. Assisting Dr. Haskell in explaining individual measures were Drs. Joseph H. Davis, Miami; James M. Ingram, Tampa; Albert C. Jaslow, Miami; Sanford A. Mullen, Jacksonville, and H. Phillip Hampton. Dr. Haskell's remarks concluded the Saturday session.

Dr. W. Dean Steward of Orlando, President-Elect, presided over the Sunday morning session.

The first speaker was Dr. Joseph C. Von Thron, Cocoa Beach, chairman of the FMA

Council on Legislation and Public Agencies and chairman of the FMA Committee on National Legislation. Dr. Von Thron's topic was the national legislative scene. Originally, the Reverend Paul B. McCleave, LL.D., director of the Department of Medicine and Religion of the American Medical Association, was scheduled to be the first speaker Sunday morning, but he too was unable to attend the conference because of the weather in Chicago.

After Dr. Von Thron's remarks there followed a discussion of county medical society programs and problems. Representing the large county was Dr. Ray E. Murphy Jr., Broward County Medical Association president. Dr. Eugene J. Boyd, president of the Sarasota County Medical Society, represented the medium-sized county and Dr. John T. Wilson, Columbia County Medical Society president, spoke for the small county.

Following the county medical society discussion, Dr. H. Phillip Hampton made his second presentation of the session, commenting on Public Law 89-97, Titles XVIII-A and B and briefly reviewing a demonstration project in the implementation of the provisions of Title XIX which began February 1 in Hillsborough County.

Dr. Floyd K. Hurt, Jacksonville, FMA Secretary-Treasurer and chairman of the FMA Investment Plan Committee, spoke next on the FMA investment plan and called attention to a new explanatory pamphlet now available.

Sunday's meeting concluded with a discussion of specialty society programs and problems. Representing their respective societies were Dr. Addison L. Messer, St. Petersburg, president of the Florida Society of Internal Medicine; Dr. Jerome Benson, Miami Beach, Florida Society of Pathologists president, and Dr. Louis M. Murray, Orlando, president of the Florida Academy of General Practice.

Following an open discussion of county, state and national programs and problems, the conference was adjourned.

Board of Governors Meeting

In its meeting of January 15, 1967 held at the FMA headquarters in Jacksonville, the Association's Board of Governors took the following actions:

FMA Budget 1967—Approved the financial statement for 1966 and adopted the budget for 1967 in the amount of $304,000 plus $20,000 for reserve and property amortization, based upon anticipated income of $325,000. In 1966, the Association's gross income was $328,965, expenses $285,026, for a gross gain of $43,939. Total assets of the Association as of December 31, 1966 were $533,519.

Crippled Children's Commission—Reviewed the current status of the Florida Crippled Children's Commission fee schedule and were advised of conferences with the Director suggesting that the fee schedule be based upon the 1962 Relative Value Studies with a conversion factor high enough to pay the physicians of Florida their usual and customary fees.

Registration Fee—Recommended elimination of the $1.00 registration fee required of doctors of medicine with the Florida State Board of Health.

Recommendations to Governor Kirk—Requested that Governor Kirk (1) consider requesting an advisory opinion from the Florida State Supreme Court regarding the constitutionality of many health agencies in Florida rendering medical service other than under the jurisdiction of the State Board of Health; (2) retain in the Governor's office, with the State Board of Health performing the administrative work, implementation of the Comprehensive Health Planning and Public Health Service Amendments of 1966; (3) consult the Florida Medical Association when making appointments of doctors of medicine to state agencies; (4) consider that if the Tuberculosis Board is abolished, its function be placed under the State Board of Health rather than the Cabinet, so they may be coordinated with the outpatient tuberculosis program of the Board of Health; (5) consider the appointment of a Governor's Steering Committee on Health to advise him regarding health matters during his administration.

Amendments to By-Laws—Approved recommendations to be presented to the House of Delegates regarding changes in the By-Laws to realign certain councils and committees.

Reports to Federal Agencies—Recommended that the FMA Delegates to the American Medical Association draft and present a resolution deploring the government requesting complete medical reports from physicians without proper compensation, and also requiring them to appear as witnesses without proper compensation; and that this resolution also be sent to Florida's Congressional delegation.

Auto Lease—Authorized continuation of the FMA-sponsored program with Auto-Lease Corporation of Florida.

Relative Value Studies—Reviewed a progress report on the revision of the FMA Relative Value Studies. It is anticipated the up-dating of the studies will be completed by April 1, 1967.

Blue Shield Forms—Recommended that members of the Association be urged to use Blue Shield forms in reporting to Blue Shield rather than the individual responsibility forms. There is certain information on the Blue Shield form which Blue Shield needs and as long as FMA sponsors Blue Shield, its members should cooperate with them.

Awards—Considered candidates for awards and selected the nominees to the House of Delegates to receive the Association's Certificate of Merit and Certificate of Appreciation, and the recipient of the A. H. Robins Award for Outstanding Community Service by a physician.

Key Contact Physicians—Appointed the Key Contact physicians and alternate physicians for each member of the Florida Congressional Delegation for the year 1967.

Specialty Groups—Granted recognition to the newly organized Florida Society of Neurology as an approved specialty group. Authorized the Florida members of the American College of Physicians to have a scientific program at the Annual Meeting.

Third Medical School—Requested the FMA Council on Medical Education and Hospitals to investigate the need for a third medical school in Florida and the availability of students and faculty to staff such a school, and to report back in one year.

Title XIX Post-Payment—Reviewed plans for implementation of Title XIX in Florida and for a demonstration project in Hillsborough County. Requested the FMA Council on Medical Economics to study post-payment plans for medical service.

Heart Disease, Cancer and Stroke—Reviewed the activities of the Florida Advisory Council on Heart Disease, Cancer and Stroke, Inc. and the current status of the planning grant application for regional programs in Florida.

Council and Committee Reports—Reviewed numerous FMA Council and Committee reports and took appropriate action where necessary.

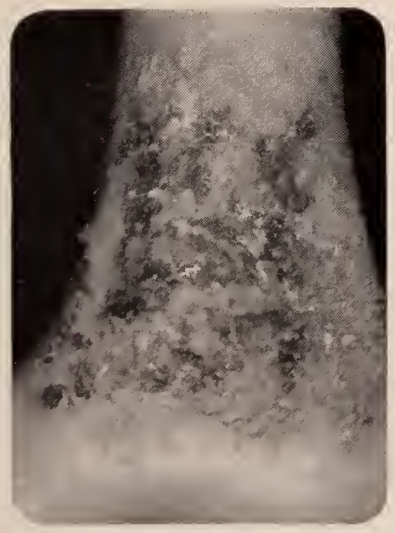
Putnam Physicians Establish Scholarship Fund

The Putnam County Medical Society has established a memorial scholarship fund at St. Johns River Junior College in memory of Dr. Grover C. Collins, Palatka physician, Dr. Charles W. LaPradd, school president, announced recently.

Dr. Collins, who was the first chief of staff of the Putnam County Memorial Hospital, was also the 1961 president of the Florida Diabetes Association and served on the staff of the Duval Medical Center.

The Putnam County Medical Society which will donate $100 for the SJRJC Dollars for Scholars Drive in the name of Dr. Collins, will establish a memorial scholarship which will amount to $1,000. The increased amount is made available as a scholarship due to a matching program whereby the federal government matches each dollar contributed to SJRJC with $9 of federal money.

Eczema of many years... controlled in two weeks



Before treatment



After treatment — with ARISTOCORT Topical Ointment 0.1% for two weeks

ARISTOCORT® Triamcinolone Acetonide Topicals have proved exceptionally effective in the control of various forms of eczema: allergic, atopic, nummular, psoriatic, and mycotic.

In most cases responsive to topical ARISTOCORT, the 0.1% concentration is sufficiently potent. The 0.5% concentration provides enhanced topical activity for patients requiring additional potency for proper relief.

Administration and Dosage: Apply sparingly to the affected area 3 or 4 times daily. Some cases of psoriasis may be more effectively treated if the 0.1% Cream or Ointment is applied under an occlusive dressing.

Contraindications: Tuberculosis of the skin, herpes simplex, chicken pox and vaccinia.

Precautions and Side Effects: Do not use in the eyes or in the ear (if drum is perforated). A few individuals react unfavorably under certain conditions. If side effects are encountered, the drug should be discontinued and appropriate measures taken. Use on infected areas should be attended with caution and observation, bearing in mind the potential spreading of infection and the advisability of discontinuing therapy and/or initiating antibacterial measures. Generalized dermatological conditions may require systemic corticosteroid therapy. Steroid therapy, although responsible for remissions of dermatoses, especially of allergic origin cannot be expected to prevent recurrence. The use over extensive body areas, with or without occlusive nonpermeable dressings, may result in systemic absorption. Appropriate precautions should be taken. When occlusive nonpermeable dressings are used, miliaria, folliculitis and pyodermas will sometimes develop. Localized atrophy and striae have been reported with the use of steroids by the occlusive technique. When occlusive nonpermeable dressings are used, the physician should be aware of the hazards of suffocation and flammability. The safety of use on pregnant patients has not been firmly established. Thus, do not use in large amounts or for long periods of time on pregnant patients.

Available in 5 Gm. and 15 Gm. tubes and ½ lb. jars.

PHOTOGRAPHS COURTESY OF M. M. NIERMAN, M.D.

Aristocort® Topical Ointment 0.1% and Cream 0.1%, 0.5%
Triamcinolone Acetonide
Also available in foam form.

Lederle LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York

406



Whenever the diet is faulty, the appetite poor, or the loss of food is excessive

through vomiting or diarrhea—

Valentine's
MEAT EXTRACT

stimulates the appetite,

increases the flow of digestive juices,

provides: supplementary amounts of vitamins, minerals and soluble proteins,

extra-dietary vitamin B_{12},

protective quantities of potassium, in a palatable and readily assimilated form.

Supplied in bottles of 2 or 6 fluidounces.

DOSAGE *is 1 teaspoonful two or three times daily; two or three times this amount for potassium therapy. Dilute with two or more equal volumes of water.*

VALENTINE Company, Inc.
RICHMOND 21 VIRGINIA

Tandearil®
oxyphenbutazone

Therapeutic Effects: Tandearil is a nonhormonal compound which may rapidly resolve inflammation and help restore normal joint function. Its action does not affect pituitary-adrenal function or impair immune responses. Its value in osteoarthritis is especially noteworthy because this disorder responds inconsistently to steroids and is often resistant to salicylates. Further, indomethacin is limited only to osteoarthritis of the hip, whereas oxyphenbutazone is effective in all forms of the disease.

Contraindications: Edema; danger of cardiac decompensation; history or symptoms of peptic ulcer; renal, hepatic or cardiac damage; history of drug allergy; history of blood dyscrasia. The drug should not be given when the patient is senile or when other potent drugs are given concurrently.

Warning: If coumarin-type anticoagulants are given simultaneously, watch for excessive increase in prothrombin time. Pyrazole compounds may potentiate the pharmacologic action of sulfonylurea, sulfonamide-type agents and insulin. Carefully observe patients receiving such therapy. Use with great caution in the first trimester of pregnancy.

Precautions: Obtain a detailed history and a complete physical and laboratory examination, including a blood count. The patient should be closely supervised and should be warned to report immediately fever, sore throat, or mouth lesions (symptoms of blood dyscrasia); sudden weight gain (water retention); skin reactions; black or tarry stools or other evidence of intestinal hemorrhage. Make regular blood counts. Discontinue the drug and institute countermeasures if the white count changes significantly, granulocytes decrease, or immature forms appear. Use greater care in the elderly and in hypertensives.

Adverse Reactions: The most common are nausea, edema and drug rash. The drug has been associated with peptic ulcer and may reactivate a latent peptic ulcer. Infrequently, agranulocytosis, or a generalized allergic reaction may occur and require withdrawal of medication. Stomatitis, salivary gland enlargement, vomiting, vertigo and languor may occur. Leukemia and leukemoid reactions have been reported but cannot definitely be attributed to the drug. Thrombocytopenic purpura and aplastic anemia may occur. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hyperglycemia, hepatitis, jaundice, and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently. Moderate lowering of the red cell count due to hemodilution may occur.

Dosage in Osteoarthritis: The initial daily dosage in adults is 300-600 mg. in divided daily doses. When improvement occurs, dosage should be decreased to the minimum effective level; this should not exceed 400 mg. daily, and is often achieved with only 100-200 mg. daily.

For complete details, please refer to full prescribing information. 6562-VI(B)R

Availability: Tablets of 100 mg.

Geigy Pharmaceuticals
Division of Geigy Chemical Corporation
Ardsley, New York

Geigy

Tandearil®
oxyphenbutazone

helps osteoarthritic joints move again



3 out of 4 osteoarthritics completely or markedly improved

Sperling, I. L.: 3 Years' Experience with Oxyphenbutazone in the Treatment of Rheumatic Disorders, Applied Therapeutics 6:117, 1964 — 76.9% of 407 patients

Watts, T. W., Jr.: Treatment of Rheumatoid Disorders with Oxyphenbutazone. Clin. Med. 73:65, 1966. — 84.6% of 39 patients

Please see adjoining page for brief prescribing summary

TA-4919 PC

NEWS

Dr. Hayden C. Nicholson Named UM Vice President for Medical Affairs

Dr. Hayden C. Nicholson, dean of the University of Miami School of Medicine, has been named Vice President for Medical Affairs, a new cabinet-level post in the UM administration, and will continue to serve as dean until a replacement is found, according to President Henry King Stanford.

Dr. Lynn P. Carmichael, director of the Family Medicine Program at the School of Medicine, has been named assistant dean of the medical school.

The new vice presidency was established by the Board of Trustees at the recommendation of the president because of the growing complexity of medical affairs with which the university is associated.

Before joining the University as Dean in 1962, Dr. Nicholson had for seven years served as executive director of the Hospital Council of Greater New York. He was dean of the University of Arkansas School of Medicine for five years prior to this.

Dr. Carmichael has been acting as liaison between the School of Medicine and Jackson Memorial Hospital, UM's major teaching hospital, and will continue to fill that role. He also will continue as director of the Family Medicine Program.

A search committee to look for a new dean is being appointed by the committee of departmental chairmen of the medical school, Dr. Stanford said. The new dean will report to the Vice President for Medical Affairs.

Florida Physician Honored by Jaycees

Dr. Walter Lane, a general practitioner in Temple Terrace and probationary member of the Hillsborough County Medical Association, was cited one of "America's 10 Outstanding Young Men for 1966," the U.S. Jaycees announced recently.

Dr. Lane received the honor for his "research in translating complex laboratory procedures into practical daily office techniques."

At the June 1966 American Medical Association Annual Convention in Chicago, Dr. Lane received the American Academy of General Practice Gold Medal Award for his scientific exhibit, "Office Bacteriology."

The exhibit has been accepted for display at the Florida Medical Association 93rd Annual Meeting, May 11-14, Americana Hotel, Bal Harbour.

Fewer New Products Reach Market Despite Drug Research Increase

Expenditures on prescription drug research and development reached a new high, but fewer new products actually reached the market in 1966 than during any single year on record.

C. Joseph Stetler, president of the Pharmaceutical Manufacturers Association, said that the situation was attributable to several factors, including difficulties encountered under federal drug regulations. He said that the 1962 federal drug amendments had necessitated increasingly lengthy, costly periods for manufacturers to develop technical information required by the government. Stetler added that more time also has been required by the Food and Drug Administration for processing applications.

Total research and development expenditures during 1966 were estimated by Stetler at about $400 million. He said that only 11 basic new products had been marketed in the year, compared with 23 in 1965, 17 in 1964, 18 in 1963, 28 in 1962, and 41 in 1961. The peak year was 1959 when 63 new products were introduced.

A PMA survey shows that a principal focus of the million-dollar-a-day search by industry for new pharmaceuticals is on drugs acting on the central nervous system and sense organs.

National Advisory Cancer Council Reports Improved Cancer Cure Rate

The National Advisory Cancer Council reported that, although cancer is still on the increase, more people are being cured of it than ever before.

The report, titled "Progress against Cancer," shows that 30 years ago there were 144,774 cancer deaths in the United States, a crude rate of 112.4 per 100,000 of the population. In 1967 an estimated 305,000 deaths will occur, bringing the rate up to 153 per 100,000, according to the report.

On the other hand, there has been an improvement in the cure rate. In 1937, less than one in five cancer patients survived five years without evidence of disease, but currently about 35%, or better than one in three, are saved. There is good reason to believe, the report states, that this favorable trend will continue.

Intensive study of six types of cancer is recommended:

Cancer of the breast, which has shown little improvement in incidence or mortality for about 30 years, the lymphomas, one of which, Hodgkin's disease, has been cured in 40% of cases in a localized stage; chronic leukemia and multiple myeloma, for which drug treatment should be greatly improved; lung cancer, which continues to increase, particularly in both men and women smokers; and uterine cancer, which has been significantly reduced and might be almost totally eradicated by early detection with the "Pap" smear.

FMA Member Writes New Book 'Diabetes for Diabetics'

Dr. George F. Schmitt, Miami internist and FMA member, is the author of the latest book for diabetics, "Diabetes for Diabetics," published by the Diabetes Press of America, a nonprofit organization donating all profits derived from sale of the book to a fund to send diabetic children to camp.

Dr. Walter Alvarez, noted medical columnist, says of the book:

"This new and completely different book for diabetics, written by my former student at the Mayo Graduate School of the University of Minnesota, is one which every diabetic and his relatives, as well as every physician treating diabetes, should own."

National and Regional Meetings in Florida

March

Southeastern Surgical Congress, Americana Hotel, Miami Beach, Mar. 20-23, '67

April

International College of Surgeons, Bal Harbour, Apr. 30-May 4, '67

May

Association for Research in Ophthalmology, Clearwater, May 1-2, '67

June

Medical Library Association, Americana Hotel, Miami Beach, June 11-16, '67

Endocrine Society, Miami Beach, June 15-17, '67

September

American Congress of Rehabilitation Medicine, Americana Hotel, Miami Beach, Aug. 27-Sept. 1, '67

October

American School Health Association, Miami Beach, Oct. 21-26, '67

American Public Health Association, Miami Beach, Oct. 23-27, '67

American Association of Public Health Physicians, Miami Beach, Oct. 23-27, '67

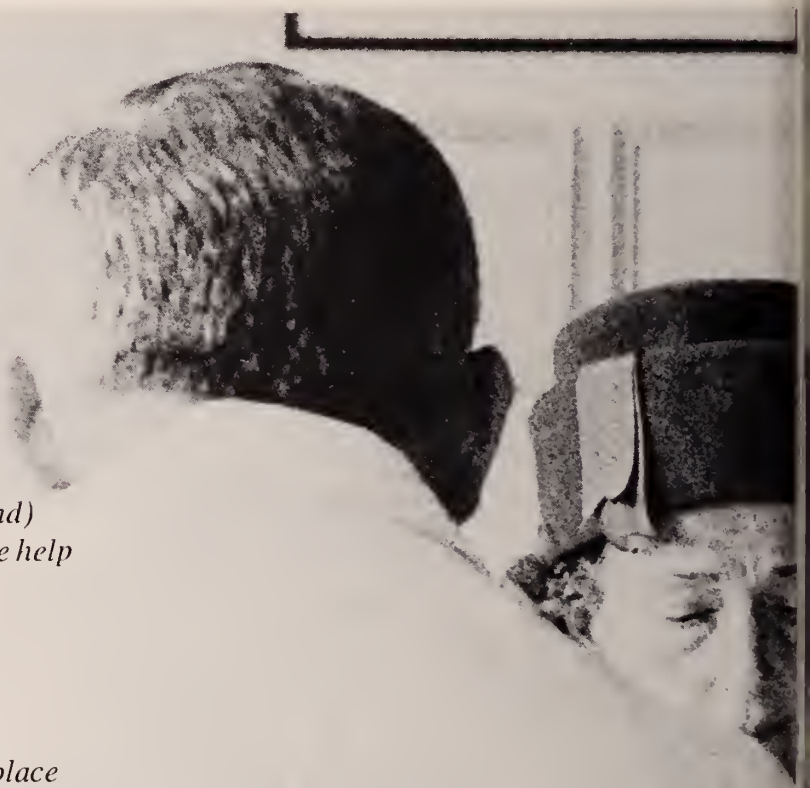
November

Gerontological Society, St. Petersburg, Nov. 9-11, '67

Southern Medical Association, Miami Beach, Nov. 13-16, '67

The Mediatric Age:

There is a growing senescent body of people on their way to malignant inactivity, who sorely need your interest and direction to help them back to a more active and useful life. There are medicines too, designed to help. One such has proved useful in clinical practice.



"A steroid-nutritional compound (Mediatric) was used in 100 patients to relieve some of the symptoms caused by degenerative changes of aging . . . This therapy resulted in improvement of 75 per cent of the patients . . ."

McNeill, A. J.: Clin. Med. *8*:518 (Mar.) 1961.

"Mediatric (steroid-nutritional compound) capsules, one a day, seem to give definite help to debilitated patients."

Arnold, E. T., Jr.: Geriatrics *12*:612 (Oct.) 1957.

"Nutritional and hormone bolstering of function in the aged may have a useful place in geriatrics."

Morgan, A. F.: Gerontologist *2*:77 (June) 1962.

"In diets which for any reason are restricted in calories, enough of these substances (B vitamins) may not be supplied . . . The use of B and C vitamin supplements may then be justified and indeed may be necessary."

Morgan, A. F.: Gerontologist *2*:77 (June) 1962.

"Intensive nutritional therapy is necessary, especially in elderly people, to correct dietary deficiencies created by large losses of protein, vitamins and other nutrients."

Riccitelli, M. L.: J. Am. Geriatrics Soc. *12*:489 (May) 1964.

Mediatric®

Designed for the "metabolically spent"

Nutritional reinforcement for those who can't – or won't – eat properly...balanced amounts of estrogen and androgen to counteract declining gonadal hormone secretion and its sequelae of premature degenerative changes...mild antidepressant for a gentle "mood" uplift...

The estrogen component in MEDIATRIC is PREMARIN® (conjugated estrogens—equine), the natural estrogen most widely prescribed for its superior physiologic and metabolic benefits.

MEDIATRIC also provides *nutritional reinforcement—blood-building factors and vitamin supplementation*. It contributes a *gentle "mood" uplift* through methamphetamine HCl.

Three different dosage forms—Liquid, Tablets, and Capsules—offer convenience and variety.

MEDIATRIC Liquid

Each 15 cc. (3 teaspoonfuls) contains:

Conjugated estrogens—equine (Premarin®)	0.25 mg.
Methyltestosterone	2.5 mg.
Thiamine HCl	5.0 mg.
Cyanocobalamin	1.5 mcg.
Methamphetamine HCl	1.0 mg.

Contains 15% alcohol

MEDIATRIC Tablets and Capsules

Each MEDIATRIC Tablet or Capsule contains:

Conjugated estrogens—equine (Premarin®)	0.25 mg.
Methyltestosterone	2.5 mg.
Ascorbic acid	100.0 mg.
Cyanocobalamin	2.5 mcg.
Intrinsic factor concentrate	8.0 mg.
Thiamine mononitrate	10.0 mg.
Riboflavin	5.0 mg.
Niacinamide	50.0 mg.
Pyridoxine HCl	3.0 mg.
Calc. pantothenate	20.0 mg.
Ferrous sulfate exsic.	30.0 mg.
Methamphetamine HCl	1.0 mg.

Orally active, water-soluble conjugated estrogens derived from pregnant mares' urine and standardized in terms of the weight of active, water-soluble estrogen content.

MEDIATRIC helps keep the older patient alert and active; helps relieve general malaise, easy fatigability, vague pains in the bones and joints, loss of appetite, and lack of interest usually associated with declining gonadal hormone secretion.

CONTRAINDICATION: Carcinoma of the prostate, due to methyltestosterone component.

WARNING: Some patients with pernicious anemia may not respond to treatment with the Tablets or Capsules, nor is cessation of response predictable. Periodic examinations and laboratory studies of pernicious anemia patients are essential and recommended.

SIDE EFFECTS: In addition to withdrawal bleeding, breast tenderness or hirsutism may occur.

SUGGESTED DOSAGES: *Male and female:* 3 teaspoonfuls of Liquid, 1 Tablet, or 1 Capsule, daily or as required.

In the female: To avoid continuous stimulation of breast and uterus, cyclic therapy is recommended (3 week regimen with 1 week rest period—Withdrawal bleeding may occur during this 1 week rest period).

In the male: A careful check should be made on the status of the prostate gland when therapy is given for protracted intervals.

SUPPLIED: No. 910 – MEDIATRIC Liquid, in bottles of 16 fluidounces and 1 gallon. No. 752 – MEDIATRIC Tablets, in bottles of 100 and 1,000. No. 252 – MEDIATRIC Capsules, in bottles of 30, 100, and 1,000.



Mediatric®

steroid-nutritional compound

AYERST LABORATORIES, NEW YORK, N.Y. 10017 • Montreal, Canada

6636

HIGHLAND HOSPITAL

ASHEVILLE, NORTH CAROLINA

Founded 1904

A DIVISION OF THE DEPARTMENT OF PSYCHIATRY
OF DUKE UNIVERSITY

Accredited by the Joint Commission on Accreditation and Certified for Medicare

Complete facilities for evaluation of and intensive treatment of psychiatric patients, including individual psychotherapy, group therapy, psychodrama, electro-convulsive therapy, Indoklon convulsive therapy, drugs, social service work with families, family therapy, and an extensive and well organized activities program, including occupational therapy, art therapy, athletic activities and games, recreational activities and outings. The treatment program of each patient is carefully supervised in order that the therapeutic needs of each patient may be realized.

Complete modern facilities with 85 acres of landscaped and wooded grounds in the City of Asheville.

Brochures and information on financial arrangements available
Contact: Mrs. Elizabeth Harkins, ACSW, Coordinator of Admissions

or

Charles W. Neville, Jr., M.D.
Assistant Professor of Psychiatry and Medical Director
Area Code 704 - 253-2761

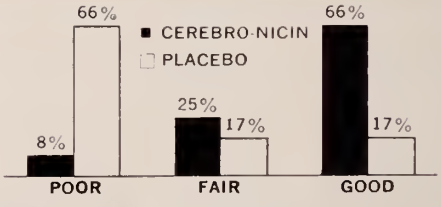
For the treatment of

apathy
irritability
forgetfulness
confusion

in the aging patient

Cerebro-Nicin®

A GENTLE CEREBRAL STIMULANT AND VASODILATOR



EACH CEREBRO NICIN CAPSULE CONTAINS·

Pentamethylene Tetrazole	100 mg.
Nicotinic Acid	100 mg.
Ascorbic Acid	100 mg.
Thiamine HCl	25 mg.
l-Glutamic Acid	50 mg.
Niacinamide	5 mg.
Riboflavin	2 mg.
Pyridoxine	2 mg.

DOSAGE: One capsule t.i.d. or as prescribed by physician.
AVAILABLE: Bottles of 100, 500, 1000 capsules.
Also elixir pint bottles.
CONTRAINDICATIONS: There are no known contraindications to Pentamethylene Tetrazole although caution should be exercised when treating patients with a low convulsive threshold.
Most persons experience a flushing or tingling sensation after taking a higher potency niacin-containing compound. As a secondary reaction some will complain of nausea and other sensations of discomfort. This reaction is transient and is rarely a cause of discontinuance of the drug if the patient is forewarned to expect the reaction.
Federal law prohibits dispensing without a prescription.

CEREBRO-NICIN® New double-blind study* shows how effectively senility can be forestalled. Four times as many aging patients showed striking improvement.

*A Double-Blind Study of Cerebro-Nicin, Therapy for the Geriatric Patient, R. Goldberg. Jrnl. of the Amer. Ger. Soc., June, 1964.

Write for literature and samples . . .

BROWN

THE BROWN PHARMACEUTICAL CO.
2500 W. Sixth Street,
Los Angeles, California 90057

REFER TO PDR

Meetings

March

2- 4 Some Aspects of Embryology and Pathophysiology of Congenital Heart Disease, University of Florida College of Medicine, Gainesville.

4 Current Concepts in Modern Medicine, Watson Clinic Annual Seminar, Watson Clinic, Lakeland.

16-17 Obstetrics and Gynecology Seminar, University of Florida College of Medicine, Gainesville.

17 Psychiatry Seminar, University of Florida College of Medicine, Gainesville.

17 "Psychosomatic Aspects of Gastrointestinal Disease" Seminar and psychosomatic medicine regional meeting, University of Florida College of Medicine, Gainesvlle.

18-19 Respiratory Disease Seminar, Causeway Inn Motel, Tampa.

18-20 Amino Acids in Human Disease, University of Miami School of Medicine, Lucayan Beach Hotel, Freeport, Grand Bahama Island.

20-23 Current Status of Genitourinary Roentgenology, University of Miami School of Medicine, Fontainebleau Hotel, Miami Beach.

April

1- 2 Management of Arthritis and Rheumatic Diseases, George Washington Hotel, Jacksonville

20-22 Current Concepts of the Management of Hip Disease and Trauma, University of Miami School of Medicine, Americana Hotel, Miami Beach.

May

11-14 Ninety-Third Annual Meeting, Florida Medical Association, Americana Hotel, Bal Harbour.

17 Psychiatry in Medical Practice, Basic Course, Jackson Memorial Hospital, Miami.

18-20 "Current Concepts of Medical and Surgical Shock," Mount Sinai Hospital of Greater Miami, Miami Beach.

THE DUVALL HOME for RETARDED CHILDREN

A home offering the finest custodial care with a happy home-like environment. We specialize in the care of infants, bed-ridden children and Mongoloids.

For further information write to

MRS. A. H. DUVALL GLENWOOD, FLORIDA

The Southern California Permanente Medical Group

Due to expansion is in need of doctors in all the specialties and in General Medicine. T. Hart Baker, M.D., a representative of our group, will be in Miami Springs, Florida at the Miami Springs Villas (Tel: 885-1911) to interview interested candidates from March 1 through March 4, 1967.

For details concerning the medical group, please write to:

Raymond M. Kay, M.D.
Medical Director
THE SOUTHERN CALIFORNIA
PERMANENTE MEDICAL GROUP
1505 North Edgemont Street
Los Angeles, California 90027

YOUR Patronage Has Made Our Growth Possible

Medical Supply Company of Jacksonville



Home Office
JACKSONVILLE
4539 Beach Blvd.
Telephone FL 9-2191

ORLANDO
1511 Sligh Blvd.
Telephone GA 5-3537

Anderson Surgical Supply Co.

Established 1916

Distributors of Known Brands of Proven Quality

TELEPHONE 229-8504
Morgan at Platt, P. O. Box 1228
TAMPA, FLORIDA 33601

TELEPHONE 896-3107
556 9th St., South
ST. PETERSBURG, FLORIDA

TELEPHONE 376-8253
236 S.W. 4th Ave.
GAINESVILLE, FLORIDA

TELEPHONE CHerry 1-9589
1818 N. Orange Ave.
ORLANDO, FLORIDA



Ballast Point Manor

5226 Nichols St., P. O. Box 13467 Phone 831-4191
Tampa, Florida

Don Savage, Owner-Manager

Care of mild mental cases, senile disorders and invalids. Alcoholics treated. Aged adjudged cases will be accepted on either permanent or temporary basis.

TUCKER HOSPITAL, INC.

212 West Franklin Street
RICHMOND, VIRGINIA

A private hospital for diagnosis and treatment of psychiatric and neurological disorders. Hospital and out-patient services.

JAMES ASA SHIELD, M.D.
GEORGE S. FULTZ, JR., M.D.
CATHERINE T. RAY, M.D.

WEIR M. TUCKER, M.D.
EDWARD W. GAMBLE, III, M.D.
GERALD W. ATKINSON, M.D.

Index to Advertisers

Abbott Laboratories
Erythrocin Sulfas 264-66
Ames Co., Inc.
Labstix 275
Anclote Manor 260
Anderson Surgical Supply Co. 296
Appalachian Hall 254
Ayerst Laboratories
Mediatric 292-93
Ballast Point Manor 296
Bristol Laboratories
Prostaphlin 202-03
Tetrex F. 279
Brown Pharmaceutical Co.
Cerebro-Nicin 294
Burroughs-Wellcome Co.
Empirin 246a
Ciba Pharmaceuticals
Otrivin 254a
Convention Press 272
Dorsey Laboratories
Tussagesic 252
DuPont
Symmetrel 246a
Duvall Home 295
Encyclopaedia Britannica 244
Geigy Pharmaceuticals
Ducolax 214a
Hygroton 254a, 255
Tandearil 288-89
Guild of Prescription Opticians 270a
Highland Hospital, Inc. 294
Hill Crest Hospital 269
Hynson, Westcott & Dunning, Inc.
Lutrexin 191
Lakeside Laboratories, Inc.
Cantil 195
Imferon 271
Mercuhydrin 270
Norpramin 215
Lederle Laboratories
Achromycin. V 254a
Aristocort 287
Stresscaps 214
Tine Test 267
Eli Lilly & Co.
Cordran 216
Ilosone 278a
Tuinal 270a
V-Cillin K 214a
Loma Linda Foods
Soyalac 283
Medical Supply Co. 295
William S. Merrell Co.
Alertonic 258-59
Neisler Laboratories
Diutensen-R 257
Parke-Davis & Co.
Chloromycetin . . . . . Second Cover
Philips Roxane Laboratories
Geroniazol T T 204-05
Pitman-Moore Co.
Novahistine LP 198-99
P. L. Dodge Memorial Hospital 272
PM of Florida 272
William P. Poythress & Co.
Mudrane 266
Riker
Estomul 276
A. H. Robins, Inc.
Allbee with C 206a
Donnatal 206a
Phenaphen 278a
Roche Laboratories
Ganatol 246a
Librium . . . . . Back Cover
J. B. Roerig & Co.
Signemycin 212-13
Wm. H. Rorer, Inc.
Emetrol 260
Novestrol 196-97
Parepectolin 281
G. D. Searle Co.
Pro-Banthine 246a
Smith, Kline & French
Thorazine 270a
Southern California Permanente Medical Group 295
Stuart Co.
Mylanta 207
Surgical Supply Co. 272
Syntex Laboratories
Norinyl 250-51
Synalar 208-11
Tucker Hospital, Inc. 296
S. J. Tutag
Aquatag 263
Valentine Co., Inc. 288
Walker Laboratories
Quinamm 206
Winthrop Laboratories
Neo-Synephrine 192
Wyeth Laboratories
Equagesic 300-01
Equanil 200-01
Wynn Pharmaceuticals, Inc.
Aminophylline . . . . . Third Cover
Numa-Dura 194

Classified Advertisements

Advertising rates for this column are $5.00 per insertion for ads of 25 words or less. Add 20¢ for each additional word.

physicians wanted

General Practitioners

GENERAL PRACTITIONER WANTED (AAGP) for north Florida college town. Vacancy in busy two man practice in medicine, pediatrics and obstetrics. Immediate excellent income with eventual full partnership. Write C-614, P.O. Box 2411, Jacksonville, Fla. 32203.

PHYSICIAN NEEDED: Sun City Center, Del E. Webb Corporation-built retirement community, 1,700 persons, south of Tampa, has urgent need of physician, either general practice or geriatrics. For first year will provide 1,300 sq. ft., rent-free office; will pay utilities; will provide exclusive use of new equipment worth $27,000; will assist in locating suitable residence. Contact R. J. Jones, P. O. Box 5016, Sun City Center, Florida 33571.

EXCELLENT OPPORTUNITY for general practitioner in community of 15,000; central Florida; 76 bed JCAH hospital. Write or call collect R. C. Thompson, Bartow Memorial Hospital, Bartow, Fla.

WANTED: General practitioner associate, leading to partnership. Practice approximately one half industrial. Ideal central Florida community. Send detailed resume to C-716, P.O. Box 2411, Jacksonville, Fla. 32203.

WANTED: General Practitioner to join group for partnership in Miami area. Starting salary $16,500. Florida license required. Write Medical Business Consultants, 9999 N.E. 2nd Avenue, Miami Shores, Fla. 33138.

Locum Tenens

PHYSICIAN wanted to take over general practice for months of July and August. Could earn to $7,500. during this period. Possibility of permanent association. No surgery. Send curriculum vitae first letter. Write C-744, P.O. Box 2411, Jacksonville, Fla. 32203.

Specialists

PEDIATRICIAN: Board eligible, to join two board pediatricians in rapidly growing Southeastern Florida coastal college town. Early partnership anticipated, excellent hospitals nearby. Send references and curriculum vitae in first letter. C-719, P.O. Box 2411, Jacksonville, Fla. 32203.

WANTED IMMEDIATELY: Pediatrician, internist, obstetrician and surgeon (capable of general practice) to join surgeon in a group. Best references required. Guaranteed minimum $18,000 plus percentage of profits or salary of $25,000. Write C-728, P.O. Box 2411, Jacksonville, Fla. 32203.

OBSTETRICIAN-GYNECOLOGIST WANTED: To associate with two man group. Large established practice in Miami; Board eligible or certified; prefer under age 35. Write P.O. Box 384, Miami Shores, Fla. 33153.

OPENING IN INTERNAL MEDICINE in 15 man group with four in internal medicine. Guarantee first year, partnership in 2 to 3 years. Write to John E. Bechtold, M.D., Palm Beach Medical Group, P.O. Box 2068, West Palm Beach, Fla. 33402.

WANTED: Board eligible general surgeon under age 40 for association with two general surgeons in greater Miami area. Florida license required. Write C-699, P.O. Box 2411, Jacksonville, Fla. 32203.

PATHOLOGIST: To head, organize department, clinical laboratories. Three hospital system, 175 beds, 23 physicians. 80,000 population, Florida Gulf coast. Florida license required. Arrangements open. Contact: Director, Fort Walton Beach Hospital, Fort Walton Beach, Fla. 32548.

PEDIATRICIAN: To join two pediatricians (shared expenses- individual practices). Must be board qualified, have Florida license, and under age 40. Choice city lower West coast. Write C-729, P.O. Box 2411, Jacksonville, Fla. 32203.

INTERNIST: Florida group of board certified specialists desires internist with gastroenterology training capable of doing fluoroscopy and x-ray interpretation. Academic, financial, personal satisfaction. Excellent modern hospitals. Beautiful area. Write C-730, P.O. Box 2411, Jacksonville, Fla. 32203.

WANTED: Internist, board qualified or board certified in internal medicine, Florida licensed. To be associated with a group of three internists. Salary and percentage basis the first year, with minimum guarantee of $18,000. Located on Southeast coast of Florida. Future partnership assured. Write C-731, P.O. Box 2411, Jacksonville, Fla. 32203.

WANTED: Associate, General Surgeon or Surgeon subspecialist to join three internists and dermatologists in practice located on southeast coast of Florida. No financial outlay required. Write C-734, P.O. Box 2411, Jacksonville, Fla. 32203.

PHYSICIAN—Pediatrician or general practitioner with pediatric background. 450 bed state hospital for nonambulatory, mentally retarded; 40 hour week; home on grounds available at nominal rental; state university junior college and excellent public school system; salary $12,600 with all fringe benefits. John D. Browning, M.D., Medical Director, Sunland Hospital, Tallahassee, Florida 32304.

PEDIATRICIAN WANTED: Excellent opportunity for a pediatrician to occupy suite in new all medical building, Sarasota, Florida. Write C-742, P.O. Box 2411, Jacksonville, Fla. 32203.

INTERNIST: To join Pan Am's industrial medical staff at Cape Kennedy (8 M.Ds, 24 R.Ns and 8 technicians) and assist in providing an overall industrial health program for all contractor personnel at the Cape. Board certified, Florida licensed, U.S. citizen. Company benefits include discount air travel privileges on world wide Pan Am system and many domestic carriers. Reply to Medical Director, Pan American World Airways, Inc., 750 South Orlando Avenue, Cocoa Beach, Florida 32931. An equal opportunity employer.

WANTED: Internist to associate with established internist. Board certified or eligible. Salary with early partnership. Busy practice in Ft. Lauderdale, Fla. Write C-739, P.O. Box 2411, Jacksonville, Fla. 32203.

WANTED: Medical anesthesiologist, assume department, 150 bed hospital. Write: Administrator, Centro Asturiano Hospital, 1302-21st Ave., Tampa, Florida 33605 for confidential details.

Miscellaneous

WANTED: Pediatrician, internist, general practitioner. Where? Apopka, Fla., 12 miles west of Orlando, Florida. Why? — new hospital, one-half completed, will open fall of '67, area of 38,000-40,000 with presently 3 physicians and one Ob-Gyn specialist. Seeing is believing! Call Apopka, Fla. collect: 889-2232 or write Dr. Maier, Box 155, Apopka, Fla. 32703.

OPPORTUNITY FOR DOCTORS who want to join a multi-specialty group—who want to practice in Florida. A senior surgeon with a large practice and with adequate facilities including laboratory, x-ray and physical therapy departments, desires to confer with board eligible or board certified doctors. The intent is to form a new multi-specialty group practice. Close proximity to a new 500 bed hospital. All inquiries held in strict confidence. Reply to: Jay S. Lombardy & Associates, Management to the Medical Profession, 1177 N.E. 8th St., Delray Beach, Florida 33444.

GENERAL PRACTITIONER OR INTERNIST: Medical offices available. One to four doctors accommodated. Modern structure; utilities and janitor service included. Many medical facilities are found among other tenants. Located in the heart of Winter Park, Fla. Telephone: 644-8217. Write: c/o 240 New England Building, Winter Park 32789.

POSITION OPEN FOR LICENSED PHYSICIAN in the outpatient department of hospital in the Florida West coast area. For details, please write C-735, P.O. Box 2411, Jacksonville, Fla. 32203.

real estate

FOR RENT: Two offices in professional building with other doctors and dentists. Fine location with ample parking. One office 1,000 sq. ft. and the other 1,100. Write Clara M. Hensley, 1724 Drew St., Clearwater, Fla.

RENTAL-PROFESSIONAL SUITES: Will divide 2,250 sq ft. to tenant's specifications. Modern professional building. Ideal location. Ample parking. 1300 North Federal Highway, Lake Worth, Fla. 33460. 305-582-1760.

JACKSONVILLE'S MOST BEAUTIFUL MEDICAL CENTER: Medical offices available July 1. Approximately two blocks from proposed new hospital. Eight suites with separate entrances, furnished to leasee's specifications. Call 724-5349 or 387-3181.

AVAILABLE: Otolarynogology office. Immediate occupancy. Ideal location. Excellent opportunity. Capable gross $35,000-$50,000 first year. Owner retiring. Sell or lease. Location excellent for general practice. Write C-746, P.O. Box 2411, Jacksonville, Fla. 32203.

WANTED: Physician to rent office space in a well equipped internist's office in North Dade area. Low volume specialist preferred. Phone 945-3581.

practices for sale

FOR SALE OR LEASE: Practice of an internist available immediately due to death. Central Miami locale with parking. Excellent facilities available with minimal investment. Low rental. Phone Miami HI 3-9917 or write C-738, P.O. Box 2411, Jacksonville, Fla. 32203.

FOR SALE: Active general practice available on or before June 1. Beach community of 10,000; 50 bed hospital. Office and equipment available. Write C-745, P.O. Box 2411, Jacksonville Fla. 32203.

RETIRING BOARD INTERNIST practice and equipment for sale. Reasonable terms. Established 30 years. Will introduce. Miami Beach, Florida. Write C-743, P.O. Box 2411, Jacksonville, Fla. 32203.

situations wanted

OBSTETRICIAN-GYNECOLOGIST, board eligible, Florida licensed seeks association or partnership with established specialist or group in southeast Florida. Write C-737, P.O. Box 2411, Jacksonville, Fla. 32203.

OPHTHALMOLOGIST, 40, board certified, desires partnership, association or group practice. Military service completed. Write C-741, P.O. Box 2411, Jacksonville, Fla. 32203.

PSYCHIATRIST, age 39, Florida licensed, seeks group or part time clinic association in S.E. Florida. Interested in individual, group and general psychiatry. Write C-747, P.O. Box 2411, Jacksonville, Fla. 32203.





TABLETS

Equagesic®

(meprobamate and ethoheptazine citrate with aspirin)

Wyeth®

Precautions: Keep out of reach of children. Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use of meprobamate may result in dependence or habituation in susceptible persons—as ex-addicts, alcoholics, severe psychoneurotics. Withdraw gradually after prolonged high dosage to avoid possibly severe withdrawal reactions including epileptiform seizures. Warn patients of possible reduced alcohol tolerance. If drowsiness, ataxia or visual disturbances occur, reduce dose. If symptoms persist, caution patients against operating machinery or driving. Give cautiously to patients with suicidal tendencies. Treat attempted suicide with immediate gastric lavage and appropriate supportive therapy

Side Effects: Ethoheptazine and aspirin may occasionally cause nausea, vomiting, epigastric distress, and rarely dizziness and CNS depression. Overdosage may result in salicylate intoxication. Meprobamate rarely causes allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever have been reported. Meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioedema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. A few cases of leukopenia, usually transient, have been reported following prolonged dosage. Rarely, cases of aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia have been reported; almost always, in the presence of known toxic agents.

Contraindications: History of sensitivity or severe intolerance to aspirin or meprobamate.

Composition: 150 mg. meprobamate, 75 mg. ethoheptazine citrate and 250 mg. aspirin per tablet.

Wyeth Laboratories Philadelphia, Pa.

Weighing on his mind, too

When pain evokes anxiety and tension, thereby heightening patient discomfort, a simple analgesic may only touch on part of the problem.

This single-prescription, nonnarcotic product, however, usually provides effective analgesia *and* helps put the patient's mind at ease.

Florida Medical Association

735 Riverside Ave., P. O. Box 2411

Jacksonville, Florida 32203

Officers

George S. Palmer, M.D., President ..... Tallahassee
W. Dean Steward, M.D., President-Elect ..... Orlando
William J. Dean, M.D., Vice President ..... St. Petersburg
Franklin J. Evans, M.D., Speaker of the House ..... Coral Gables
James T. Cook, M.D., Vice Speaker ..... Marianna
Floyd K. Hurt, M.D., Secretary-Treasurer ..... Jacksonville
H. Phillip Hampton, M.D., Immediate Past President ..... Tampa
W. Harold Parham, Executive Director ..... Jacksonville

Councils

Jesse W. Castleberry, M.D., Chairman, Council on Allied Professions and Vocations ..... Orlando
John J. Cheleden, M.D., Chairman, Judicial Council ..... Daytona Beach
Joseph C. VonThron, M.D., Chairman, Council on Legislation and Public Agencies ..... Cocoa Beach
Jack A. MaCris, M.D., Chairman, Council on Medical Economics ..... St. Petersburg
David W. Martin, M.D., Chairman, Council on Medical Education and Hospitals ..... West Palm Beach
William R. Daniel, M.D., Chairman, Council on Medical Services ..... Orlando
Richard C. Dever, M.D., Chairman, Scientific Council ..... Miami
Warren W. Quillian, M.D., Chairman, Council on Special Activities ..... Coral Gables
Edward W. Cullipher, M.D., Chairman, Council on Specialty Medicine ..... Miami
Mason Romaine III, M.D., Chairman, Council on Voluntary Health Agencies ..... Jacksonville

Information for Authors

Manuscripts submitted for publication in the Journal of the Florida Medical Association should be double or triple spaced on white bond, including title page, illustration legends, charts and graphs, table headings, footnotes and bibliography.

Submit original manuscript and two copies. Copying by electrostatic dry process (not wet process) is preferred to tissue copies. Retain one additional copy in your office for proofreading. All material is submitted with the understanding it is subject to editing.

Photographs should be submitted as 5x7 glossy prints, untrimmed and unmounted; number each photograph *lightly* on the back with pencil and indicate top. Charts, graphs and medical illustrations should be submitted as india ink drawings on white gloss paper; remember to make details large enough to allow for photographic reduction. It is a policy of the Journal that authors pay for any cuts made to illustrate their papers.

Titles should be short, specific and clear. Omit phrases such as "The Use of," "Observations on." If paper was presented at a meeting, indicate name of organization, city, month, day and year.

Only original papers not previously published are accepted for publication. Manuscripts submitted for publication are subject to review and approval by the Journal Publications Committee. Except by invitation, only papers from members of the Florida Medical Association are considered for publication.

References should be typewritten, double or triple spaced, beginning on a new sheet of paper entitled "References." Number references in the text in order of citation and prepare bibliography in the same order. Bibliographies should conform to the style of the Index Medicus. The Journal prints only bibliographies of eight references or less; bibliographies of more than eight references are referred to at the end of the paper with the statement "References are available from the author upon request."

All manuscript pages should be numbered consecutively. Within the manuscript, numbers one to nine should be spelled out except when used for units of measurement; for numbers above nine, numerals should be used. Dorland's Medical Dictionary and Webster's International Dictionary may be used as standard references. Scientific names for drugs should be used when possible. Copyright or trade names of drugs should be capitalized.



IN EMPHYSEMA

THE 'EASY-TO-TAKE' AMINOPHYLLINE

Aminophylline dura-tabs®

prolonged-medication tablets 4½ gr. (0.3 Gm.)

Precautions: Use with caution in patients with poor renal function as a decreased rate of excretion may lead to accumulation and untoward reactions. Gastric irritation may occasionally be observed in certain patients sensitive to oral aminophylline.

Dosage: Adults, 1 to 2 Aminophylline Dura-Tabs each 8 or 12 hours, with food.

RARELY UPSET THE STOMACH

Oral aminophylline needn't disturb the stomach—nor a good night's sleep. Patients breathe easier all day, sleep better all night, as each Aminophylline Dura-Tab dose provides effective therapeutic activity for up to 12 hours. And unlike conventional tablets, AMINOPHYLLINE DURA-TABS seldom cause gastric distress. The special Dura-Tab process allows the gradual absorption of the medication from the intestinal tract with only a small fraction of the dose released in the stomach.

WYNN Pharmaceuticals, Inc., Phila., Pa. 19132 • Manufacturers of QUINAGLUTE® DURA-TABS®

LIBRIUM®
(chlordiazepoxide HCl)

LIBRARY
MAR
NEW YORK ACADEMY OF MEDICINE

ROCHE

Library
New York Academy of Medicine
2 East 103rd St
New York N Y J 12-67
10029

WHEN ANXIETY IS A SIGNIFICANT COMPONENT OF THE CLINICAL PROFILE

Before prescribing, please consult complete product information, a summary of which follows:

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Warn against hazardous occupations requiring complete mental alertness. Use caution in administering to addiction-prone patients or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of child-bearing age requires that its potential benefits be weighed against its possible hazards.

Precautions: In elderly and debilitated and in children over five, limit dosage to smallest effective amount, increasing gradually as needed and tolerated. In general, concomitant use with other psychotropics is not recommended. Paradoxical reactions have been reported in psychiatric patients and hyperactive aggressive children. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically. Observe usual precautions in presence of impaired renal or hepatic function, impending depression and suicidal tendencies.

Adverse reactions: Drowsiness, ataxia and confusion may occur, especially in elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. Syncope occurs rarely. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis, jaundice and hepatic dysfunction) may develop occasionally, making periodic blood counts and liver-function tests advisable during protracted therapy. Individual maintenance dosages should be determined.

Dosage: Oral—Adults: Mild to moderate anxiety and tension, 5 or 10 mg t.i.d. or q.i.d.; severe states, 20 or 25 mg t.i.d. or q.i.d. Geriatric patients: 5 mg b.i.d. to q.i.d.

Supplied: Capsules, 5 mg, 10 mg and 25 mg—bottles of 50.

Roche Laboratories • Division of Hoffmann - La Roche Inc • Nutley, N.J. 07110

APRIL, 1967
Volume 54
Number 4

The JOURNAL of the Florida Medical Association

In This Issue

Surgery in Heart Disease
Congenital Hyperthyroidism
Alcoholics and Alcoholism
Resistant Monilial Vaginitis
Jugulorography in Otolaryngology
Eosinophilic Granuloma of the Lung

OFFICIAL PUBLICATION OF THE FLORIDA MEDICAL ASSOCIATION

PLAN TO ATTEND
93rd Annual Meeting
May 11-14, 1967
Americana Hotel
Bal Harbour


when it counts...
Chloromycetin®
(chloramphenicol)
PARKE-DAVIS
PARKE, DAVIS & COMPANY, Detroit, Michigan 48232
Complete information for usage
available to physicians upon request.
01386

BSP® DISPOSABLE UNIT

HW&D BRAND OF SODIUM SULFOBROMOPHTHALEIN INJECTION, USP

(50 mg. per ml.)

BSP®



BROMSULPHALEIN®

IN A COMPLETE, STERILE, DISPOSABLE, & ECONOMICAL PATIENT-UNIT.

BSP, one of the more valuable single laboratory procedures for determining hepatic function, is now packaged in a complete individual patient-unit.

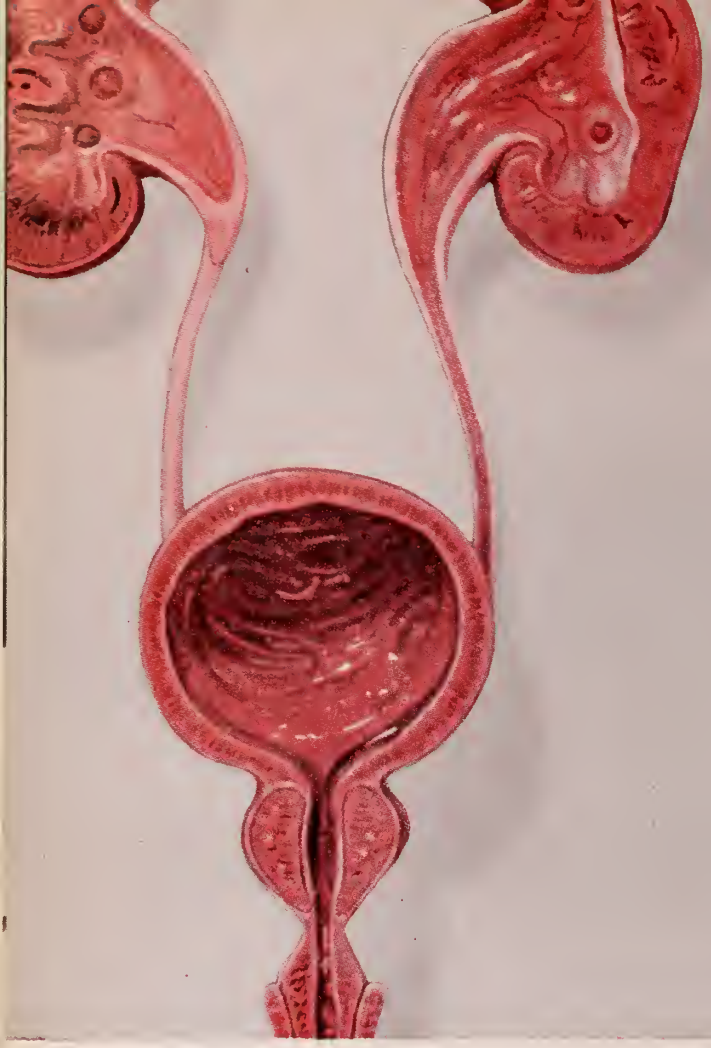
Each BSP Disposable Unit contains a sterile syringe with the 5 mg./kg. BSP dosage schedule imprinted on the barrel, a sterile needle, alcohol swab and a 7.5 ml. or 10 ml. size ampule of terminally sterilized Bromsulphalein solution.

This all-inclusive disposable put-up lessens the chance of cross-infection and saves time and labor— the most costly commodities.

HYNSON, WESTCOTT & DUNNING, INC.

HW&D (BSP03)

BALTIMORE, MARYLAND 21201



Diagnosis:

cystitis?
pyelonephritis?
pyelitis?
urethritis?
prostatitis?

in any case,
usually gram-negative*

Therapy:

two 500 mg. Caplets® q.i.d
(initial adult dose)

Indications: Urinary tract infections caused by gram-negative and some gram-positive organisms.

Side effects: Mainly mild, transient gastrointestinal disturbances; in occasional instances, drowsiness, fatigue, pruritus, rash, urticaria, mild eosinophilia, reversible subjective visual disturbances (overbrightness of lights, change in visual color perception, difficulty in focusing, decrease in visual acuity and double vision), and reversible photosensitivity reactions. Marked overdosage, coupled with certain predisposing factors, has produced brief convulsions in a few patients.

Precautions: As with all new drugs, blood and liver function tests are advisable during prolonged treatment. **Pending further experience, like most chemotherapeutic agents, this drug should not be given in the first trimester of pregnancy. It must be used cautiously in patients with liver disease or severe impairment of kidney function.** Because photosensitivity reactions have occurred in a small number of cases, patients should be cautioned to avoid unnecessary exposure to direct sunlight while receiving NegGram, and if a reaction occurs, therapy should be discontinued. The dosage recommended for adults and children should not arbitrarily be doubled unless under the careful supervision of a physician. Bacterial resistance may develop.

When testing the urine for glucose in patients receiving NegGram, Clinistix® Reagent Strips or Tes-Tape® should be used since other reagents give a false-positive reaction.

Dosage: Adults: Four Gm. daily by mouth (2 Caplets® of 500 mg. four times daily) for one to two weeks. Thereafter, if prolonged treatment is indicated, the dosage may be reduced to two Gm. daily. Children may be given approximately *25 mg. per pound* of body weight per day, administered in divided doses. The dosage recommended above for adults and children should not arbitrarily be doubled unless under the careful supervision of a physician. Until further experience is gained, infants under 1 month should not be treated with the drug.

How supplied: Buff-colored, scored Caplets® of **500 mg. for adults,** conveniently available in bottles of 56 (sufficient for one full week of therapy) and in bottles of 1000. **250 mg. for children,** available in bottles of 56 and 1000.

References: (1) Based on 23 clinical papers, 1512 cases. Bibliography on request. (2) Bush, I. M., Orkin, L. A., and Winter, J. W., in Sylvester, J. C.: Antimicrobial Agents and Chemotherapy—1964, Ann Arbor, American Society for Microbiology, 1965, p. 722.

Winthrop

Winthrop Laboratories, New York, N. Y. 10016

NegGram

Brand of

nalidixic acid

a specific anti-gram-negative

eradicates most urinary tract infections...

- Low incidence of untoward effects; no fungal overgrowth, crystalluria, ototoxic or nephrotoxic effects have been observed.
- "Excellent" or "good" response reported *in more than 2 out of 3* patients with either chronic or acute gram-negative infections.[1]

*As many as 9 out of 10 urinary tract infections are now caused by gram-negative organisms: E. coli, Klebsiella, Aerobacter, Proteus, Paracolon or Pseudomonas[2]... However, infections of the urethra and prostate caused by non-gonococcal gram-negative organisms are believed to be less prevalent.

The JOURNAL
of the Florida Medical Association

Volume 54, Number 4, April 1967

THAD MOSELEY, M.D.
Editor

Assistant Editors

JOHN M. PACKARD, M.D.
OSCAR W. FREEMAN, M.D.

Assistant Editor from the Board of Governors
JACK Q. CLEVELAND, M.D.

W. HAROLD PARHAM
Managing Editor

EUGENE L. NIXON
Associate Managing Editor

LOUISE RADER
Assistant Managing Editor

EDITH B. HILL
Editorial Consultant

ublished monthly at Jacksonville, lorida. Price $7.00 a year: single numers, 70 cents. Address Journal of lorida Medical Association, P.O. Box 411, 735 Riverside Ave., Jacksonville, la. 32203. Telephone (904) 356-1571. Accepted for mailing at special rate of ostage provided for in Section 1103, ct of Congress of October 3, 1917; uthorized October 16, 1918. Entered s second class matter under Act of ongress of March 3, 1879, at the post ffice at Jacksonville, Florida, October 3, 1924.

THIS ISSUE

Scientific Articles

Palliative Operations in Congenital Heart Disease, James L. Guest Jr., M.D., L. Jerome Krovetz, M.D., Thomas D. Bartley, M.D., Gerold L. Schiebler, M.D., and Myron W. Wheat Jr., M.D 329
Resistant Monilial Vaginitis, The Male Aspect, Charles A. Gilpin, M.D. 337
Jugulurography as a Diagnostic Technique in Otolaryngology, James E. Gamble, M.D. and James R. Chandler, M.D. 339
Congenital Hyperthyroidism, Virgilio R. Pilapil, M.D. and Eugene M. Frame, M.D. 343
Eosinophilic Granuloma of the Lung With Mediastinal Emphysema, William L. Baird Jr., M.D. and James D. Moran, M.D. 347
Philosophy and Pathogenesis of One Practitioner's Treatment of Alcoholics and Alcoholism, Thomas M. Quehl, M.D. 349

Special Articles

Reading Is What's Happening 373
A Month With Medico in Afghanistan, Everett Shocket, M.D. 378

Editorial

Neonatal Hyperthyroidism, Warren W. Quillian II, M.D. 355

Departments

President's Page 353
Association News 314
News 323
Public Health Topics 389
National and Regional Meetings in Florida 390
Meetings 398
Letters 399
Classified 408

Miscellaneous

Florida Medical Association Officers and Council Chairmen 322
Information for Authors 322
Woman's Auxiliary Benefit Art Show 324
Schedule of Activities, Florida Medical Association Annual Meeting 359
Scientific Speakers, Annual Meeting 362
Medical Licenses Granted 404
Index to Advertisers 411

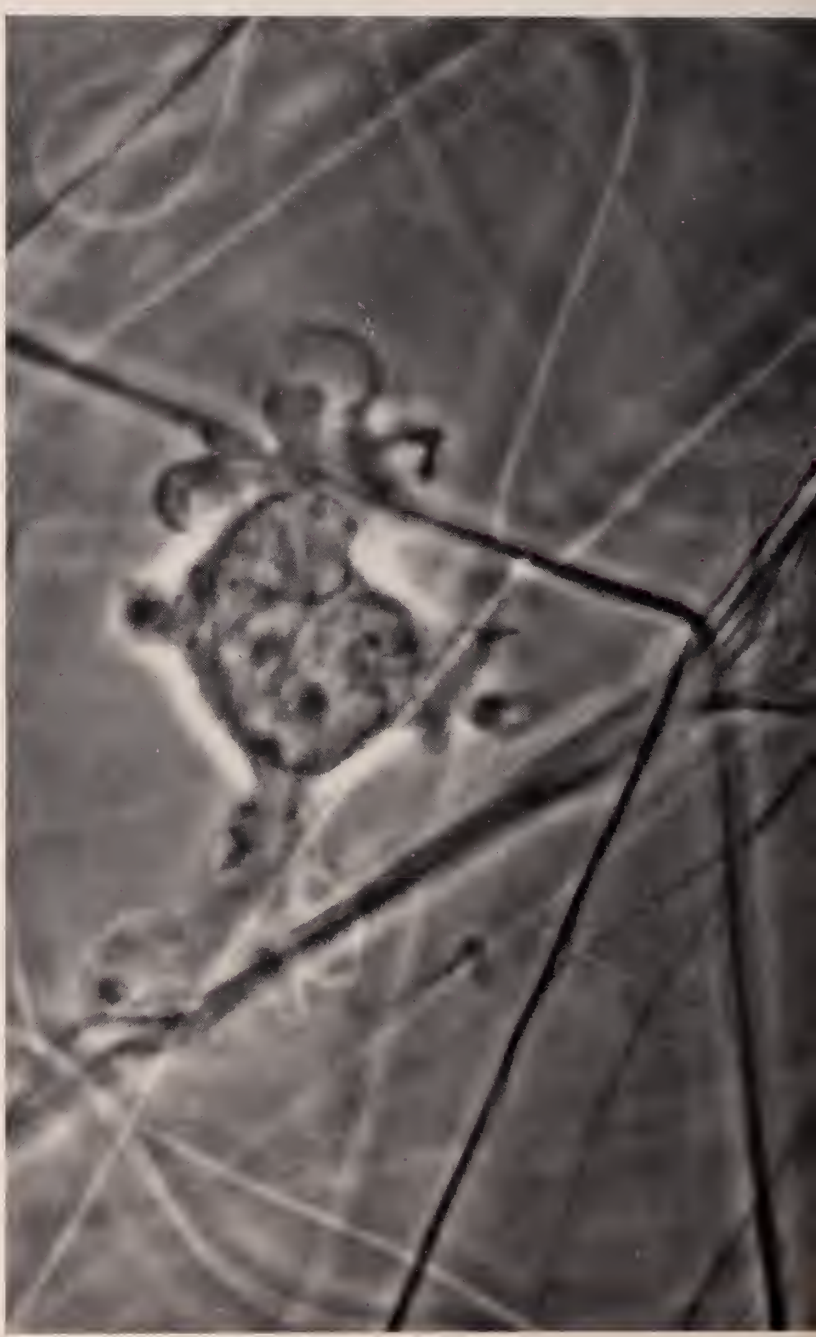
Owned and published by the Florida Medical Association, Inc. The Journal is not responsible for the opinions and statements of its contributors.

INFLAMMATION:
A cellular fight for life

A SYNTEX REPORT based on recently developed hypotheses about topical corticosteroids, including the cellular theories of inflammation by Thomas F. Dougherty, Ph.D., University of Utah.

You are looking at a fibroblast fighting for life. This cell—one of the most common found in connective tissue—has literally been poisoned by cytotoxins released from other cells that have ruptured. Soon, if the abnormal activity of this fibroblast does not cease, it, too, will rupture and die—one more casualty in the inflammatory wave of destruction precipitated by injury.

Until a short time ago no one had ever witnessed such a scene at the cellular level. Now, through advanced cinemicrographic techniques, it is possible to view and photograph the inflammatory process as produced experimentally in living animal tissue. This method permits new insight into the mechanism of inflammation and the role of corticosteroids in therapeutic management. Equally important, these techniques shed new light on factors that may make one corticosteroid more effective than another—factors that can be correlated with other chemical, biologic, and clinical parameters.

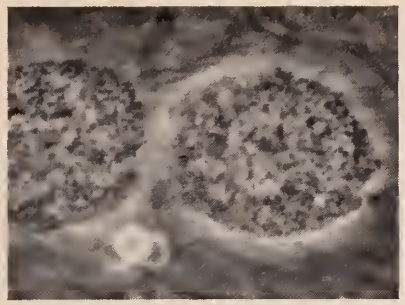


Visual evidence of how corticosteroids influence the inflammatory reaction

Working with phase-contrast cinemicrography on living animal tissue, Doctors Thomas F. Dougherty and David Berliner of the University of Utah College of Medicine have actually filmed cellular events that occur during the inflammatory reaction. This remarkable study* and additional work by these investigators, as well as by others, have established a new theoretical biologic basis for the antiinflammatory effect of the corticosteroids. (It must be noted that other theories, such as the lysosome or so-called "suicide bag" theory, have been postulated, although it is quite likely that there are more similarities than differences among the various theoretical models.)

The inflammatory wave of destruction

In this investigation an injurious injection of gelatin is used to set off an inflammatory reaction in living mouse tissue. What follows is a wave of destructive cellular activity that comprises the inflammatory response to injury. Mast cells (which contain heparin, serotonin and histamine) take up water, swell and rupture, releasing their contents, which are toxic outside the mast cell wall. These toxins, in turn, cause disintegration of other cells (such as fibroblasts) and the release of additional toxic material. Capillaries, too, take up water and leak unformed blood elements, causing edema. And polymorphonuclears, lymphocytes and perithelial cells invade the inflamed site. As a result of all these changes, the cellular environment reaches a state of turmoil.



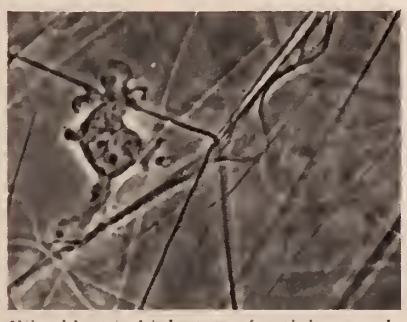
Phase-contrast microscopy showing mast cell before injury.



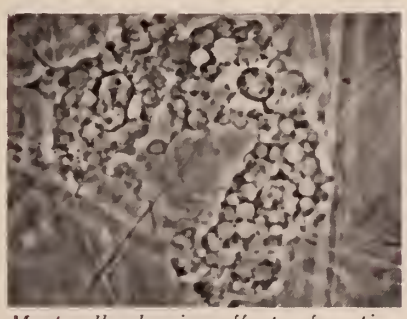
Mast cell (after injury) has broken up and released cytotoxins.

How corticosteroids change the picture

Corticosteroids appear to virtually stop the abnormal cellular activity that constitutes the inflammatory reaction. This permits the body's natural resources to clear up the inflamed area and repair the damaged tissue. This interpretation is supported by the fact that when the injurious gelatin solution is injected simultaneously with a corticosteroid —Synalar (fluocinolone acetonide)— the inflammatory pattern simply does not develop.



Fibroblast in high state of activity, much distorted.



Mast cells showing effects of corticosteroid action: cells are normal in size, shape and activity.



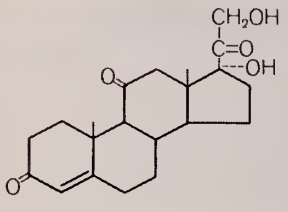
In summarizing his study Doctor Dougherty states: "...we also feel this work may explain why one corticosteroid helps a patient more rapidly and effectively than another. If it does, it is because one corticosteroid is the fastest, most effective inhibitor of the series of inflammatory events at the tissue level."

**A New View of Corticosteroid Action in Inflammatory Dermatoses,* a film based on this study, is now available from your Syntex representative.

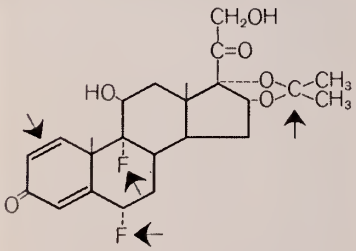
See last page for contraindications, precautions, side effects and dosag

How advances in chemical design have achieved greater steroid potency

The chemical modification of corticosteroid molecules from the advent of hydrocortisone to the development of Synalar (fluocinolone acetonide) is a prime example of how biochemists can "design" to increase therapeutic activity and minimize undesirable side actions. Below, for example, we see the important changes that were made in reference to the hydrocortisone molecule to produce fluocinolone acetonide, one of the most active of all topical corticosteroids. As a result, a 0.01% preparation of Synalar (fluocinolone acetonide) has been reported to do the work of a 1% hydrocortisone product containing 100 times more cortiscosteroid. And it can often do it more effectively.



Hydrocortisone

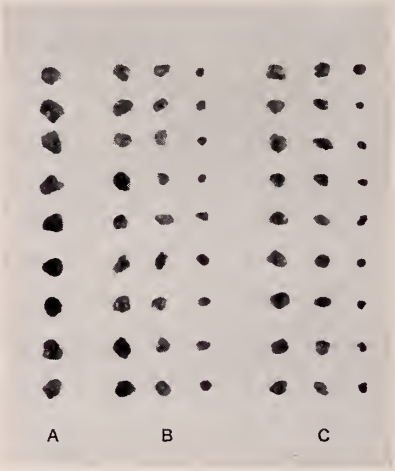


Fluocinolone Acetonide (Synalar)

- ☐ *a double bond between carbons 1 and 2*
- ☐ *fluorine substitutions at* both *the 6-α, and the 9-α positions*
- ☐ *the addition of the acetonide at the 16-α, 17-α positions, thus providing one of the most potent topical corticosteroids available.*

How bioassay tests are used to "predict" therapeutic potential

Biologic assays are another tool used by researchers to help establish the relative activity of corticosteroids. To date no single method of assaying corticosteroid activity has emerged as the ideal "yardstick" for predicting therapeutic potential. Taken together, however, these methods have proved useful. When such tests are run on various corticosteroids, a definite order of corticosteroid activity becomes evident. Compounds with the highest order of activity may be expected to merit clinical trial to establish their high therapeutic potential. When assayed by these methods, fluocinolone acetonide (Synalar) emerges as one of the most active topical corticosteroids, milligram for milligram, available for clinical application today.



THE THYMUS INVOLUTION ASSAY[1-4] is run on adrenalectomized rats. The sizes of the glands are measured, and the degree of involution caused by the steroid is determined as an indication of its potency. In the above photo, the comparative involution of thymus glands achieved with hydrocortisone and Synalar (fluocinolone acetonide) is shown. Untreated controls (A) show normal size. Group B – injected with 1, 2 and 4 mg. of hydrocortisone – show progressively smaller thymuses as does Group C – injected with fluocinolone acetonide – but with only 1/500th the dose of hydrocortisone.



THE ANTIGRANULOMA ASSAY[1-4] also utilizes adrenalectomized rats. Granulomas are induced by subcutaneous implantation of cotton pellets on either side of the thorax. The degree of granuloma inhibition achieved by a steroid reflects its potency. The above photo shows the inhibition of granuloma formation achieved with hydrocortisone and Synalar (fluocinolone acetonide). Untreated controls (A) show large, red granulomas adhering to the pellets. Group B, receiving hydrocortisone and Group C, receiving fluocinolone acetonide, show little, if any, granuloma formation. Fluocinolone acetonide produced the same effect as hydrocortisone with only 1/500th the dose. This assay, as well as the thymus involution assay, measures systemic rather than topical corticosteroid activity. Nevertheless, results by these methods correlate well with other assays and with the milligram potencies of topical steroids in current clinical use.

Worldwide clinical experience confirms the predictable therapeutic potential of Synalar

It is particularly gratifying that the promise of the advanced chemical design and high order of bioassay activity of Synalar (fluocinolone acetonide) has been confirmed by widespread therapeutic application. Indeed, the impressive clinical response rate of Synalar has been documented in no fewer than 232 papers from 22 countries.

Representative Clinical Results with Synalar*

Efficacy Documented in over 4,000 Patients

Condition	Number of Publications	Number of Patients	Significant Improvement†
Contact Dermatitis	27	750	713
Eczematous Dermatitis	21	472	409
Seborrheic Dermatitis	18	442	426
Atopic Dermatitis	24	460	426
Psoriasis	36	1,699	1,510
Neurodermatitis	18	351	324
Total	144	4,174	3,808

*Complete bibliography on request.

†Expressed by the authors as excellent, very good, good, complete remission of inflammation, etc.

PRESCRIBING INFORMATION

For initiation of therapy: Cream 0.025%, 5 and 15 Gm. tubes, 425 Gm. jars; *for emollient effect:* Ointment 0.025%, 15 Gm. tubes; *for maintenance therapy:* Cream 0.01%, 15 and 45 Gm. tubes, 120 Gm. jars; *for intertriginous or hairy sites:* Solution 0.01%, 20 cc. and 60 cc. plastic squeeze bottles; *for infected inflammatory dermatoses:* Neo-Synalar® Cream (0.025% fluocinolone acetonide, neomycin sulfate, equivalent to 0.35% neomycin base), 5 and 15 Gm. tubes. CONTRAINDICATIONS: Tuberculous, fungal, and most viral lesions of the skin, (including herpes simplex, vaccinia, and varicella). Not for ophthalmic use. Contraindicated in individuals with a history of hypersensitivity to any of the components. PRECAUTIONS: Synalar preparations are virtually nonsensitizing and nonirritating. However, the solution may produce burning or stinging when applied to denuded or fissured areas. In some patients with dry lesions, the solution may increase dryness, scaling or itching. While topical steroids have not been reported to have an adverse effect on pregnancy, the safety of their use on pregnant females has not absolutely been established. Therefore, they should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time. Prolonged use of any antibiotic may result in overgrowth of nonsusceptible organisms; if this occurs, appropriate therapy should be instituted. When severe local infection or systemic infection exists, the use of systemic antibiotics should be considered, based on susceptibility testing. SIDE EFFECTS: Side effects are not ordinarily encountered with topically applied corticosteroids. As with all drugs, however, a few patients may react unfavorably to Synalar under certain conditions. The neomycin in Neo-Synalar Cream rarely produces allergic reactions.

REFERENCES: 1. Lerner, L. J., Bianchi, A., Turkheimer, A. R., Singer, F. M., and Borman, A.: Anti-inflammatory steroids: potency, duration and modification of activities. Ann NY Acad Sci 116:1071 (Aug. 27) 1964. 2. Idem: Comparison of anti-granuloma, thymolytic and glucocorticoid activities of anti-inflammatory steroids. Proc Soc Exp Biol Med 116:385 (June) 1964. 3. Ringler, A.: Activities of adrenocorticosteroids in experimental animals and man, in Dorfman, R. I.: Methods of hormone research, New York, Academic Press, 1964. vol. III. pp. 234-280. 4. Gubersky, V. R.: To be published.

fluocinolone acetonide — an original steroid from

SYNTEX LABORATORIES INC., PALO ALTO, CALIF.

For inflammatory dermatoses... by any measure a topical corticosteroid of choice

Synalar® (fluocinolone acetonide)

Milligram for milligram one of the most active topical corticosteroids available

Rapid and predictable in antiinflammatory and antipruritic activity

Results often comparable to those of systemic corticosteroids with fewer hazards

Association News

AMA Policy on Chiropractic

The American Medical Association has adopted an official policy on chiropractic.

The statement, initiated by the Committee on Quackery and presented by the Board of Directors, was adopted unanimously by the House of Delegates at the Clinical Convention in November 1966.

The official policy of medicine on chiropractic states: "It is the position of the medical profession that chiropractic is an unscientific cult whose practitioners lack the necessary training and background to diagnose and treat human disease. Chiropractic constitutes a hazard to rational health care in the United States because of the substandard and unscientific education of its practitioners and their rigid adherence to an irrational, unscientific approach to disease causation.

"In 1965, a United States District Court, in upholding a state's constitutional right to refuse to license chiropractors, said that 'since chiropractic claims to be a complete and independent healing art capable of curing almost all kinds of disease, the state Legislature may have felt that the requirement of a foundation in materia medica and surgery . . . would be a protection to the public.' Without dissent, the United States Supreme Court affirmed the decision.

"The wisdom of these decisions by the nation's highest courts justifies the medical profession's educational program of alerting the nation to the public health threat posed by the cult of chiropractic.

"Patients should entrust their health care only to those who have a broad scientific knowledge of diseases and ailments of all kinds, and who are capable of diagnosing and treating them with all the resources of modern medicine. The delay of proper medical care caused by chiropractors and their opposition to the many scientific advances in modern medicine, such as life-saving vaccines, often ends with tragic results.

AMA Urged To Endorse Federal Support of Research

The American Medical Association should support in general the federal biomedical research program, but the AMA has an obligation to the public and to the medical profession to question any facet of the federal program which it may believe to be ill-advised.

This is the primary recommendation of the AMA's Commission on Research, named by the Board of Trustees two and one-half years ago to assess the impact of federal government support upon research itself, and upon medical schools, the education of physicians and the provision of medical services.

The Commission, headed by former U. S. Supreme Court Justice Charles E. Whittaker of Kansas City, Mo., recently presented its report to the AMA Trustees.

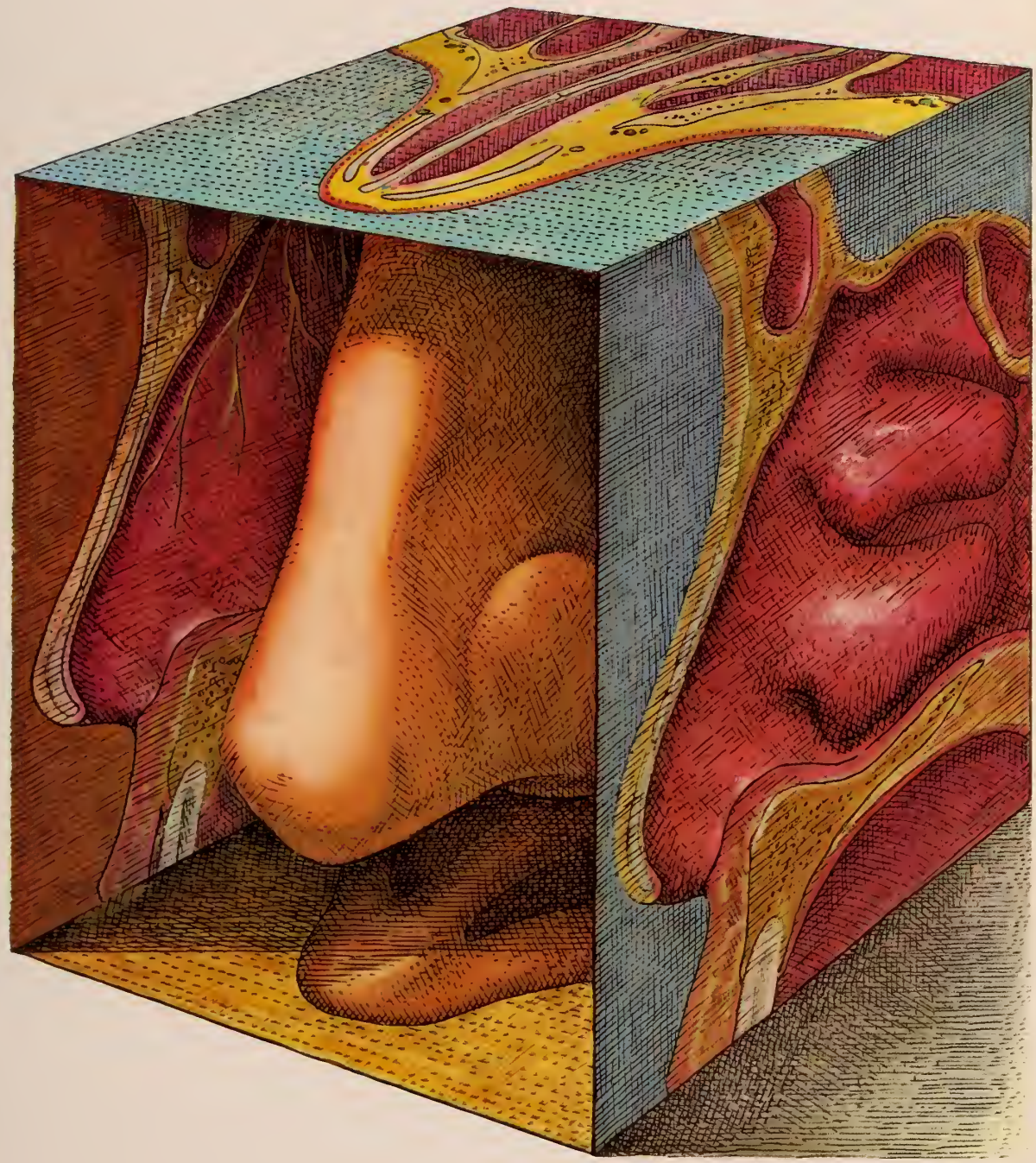
"While the findings of this Commission regarding Federal impact on medical research are on the whole favorable, the Commission has observed stresses and strains within the growth and development of Federally-sponsored research which call for remedial action," Justice Whittaker declared.

Wesley W. Hall, M.D., of Reno, Nev., chairman of the AMA Board, said: "This report, because of the importance and current applicability of many of the issues considered, will undoubtedly evoke widespread interest. The Board, therefore, has approved its immediate publication. At a later date the Board will react formally to the report and, in addition, will submit it to the House of Delegates for final action." With submission of the report, the Commission completed its work and was discharged with thanks from the Board.

spring 1967

DORSEY Season

A journal within a journal published quarterly in the interests of better medicine by Dorsey Laboratories, a division of The Wander Company, Lincoln, Nebraska. Address communications to Raymond C. Pogge, M.D., Director of Medicine.



this issue: the ubiquitous world of summer allergies



the ubiquitous world of summer allergies

Donald L. Unger, M.D. • Clinical Assistant Professor, Department of Medicine (Allergy), Stritch School of Medicine (Loyola).

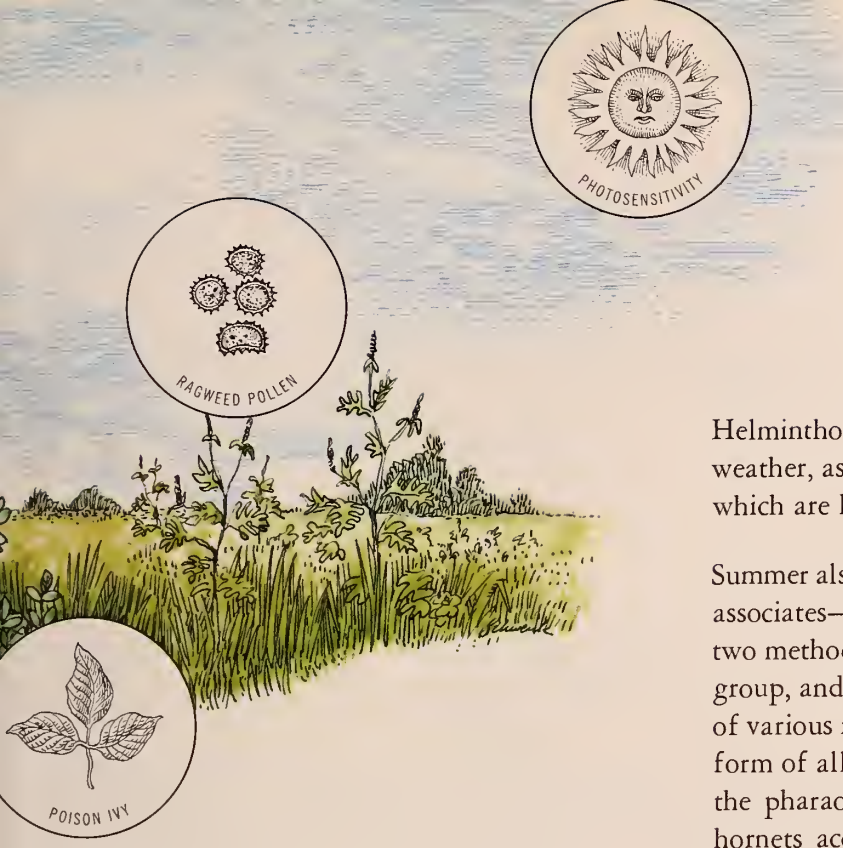
In the Spring a young man's fancy lightly turns to thoughts of—allergies. This is at least true of the 10% of the population who have hay fever and the 4% who have asthma.[1] The snow melts, the trees blossom and the noses run. Patients who were fine all winter may not be enthralled by the sight of the first robin or the blossoming of a crocus, for their appearances may precede the "sneezin' season."

Allergies in general can be divided into winter allergies and summer allergies. In the winter the main problems are inside the house: e.g. dogs, cats, dust and feathers. Houses in the northern half of the country become so dry that it becomes essential to add humidity to the home; this is a far cry from the damp summer months with the moldy basements and need for dehumidifiers.

Early in April trees begin to pollinate, with each tree having about a two week period of pollination. A particular patient may be sensitive to only one tree and thus have his hay fever for such a short time that he thinks he has a cold.[2] The entire tree season starts about April 1 and ends about Memorial Day, although all hay fever seasons are blurred and prolonged in the southern part of the country. Tree pollen is usually very heavy and a person may well have most of his exposure from those trees immediately surrounding his home.

Grasses pollinate from about May 15 until July 4, and cause "rose fever." Grass pollens are somewhat lighter and more buoyant than tree pollens, and are much more ubiquitous. While there are several varieties of grasses in the United States, they are so closely related antigenically that a person sensitive to one is generally sensitive to them all.[3] Thus, while the tree season is really several small seasons intertwined, the grass season will usually result in symptoms for a more prolonged period. Obviously, a grass-sensitive patient will have trouble only when grass is pollinating—he will have to think of another excuse not to mow the lawn after July 4.

Ragweed is the "Big Daddy" of them all in the eastern two-thirds of the country. Pollination is generally from mid-August until the end of September, with the predicted lower counts and longer seasons



in the southern part of the country. Ragweed is a very light pollen which may be windborne for hundreds of miles. An interesting study was made in New York City, in which 90% or more of the ragweed plants were destroyed in three of the five boroughs; pollen counts done during the season were virtually identical in all five.[4]

Ragweed is, of course, the most common cause of hay fever and is associated with an incredible loss of man hours from work each year. Many is the patient who travels to areas where the pollen count is low, just to avoid having symptoms. There is no ragweed anywhere in the world except the United States and portions of Canada and Mexico.

While molds are present through the year, the most important ones predominate from April until November. An old wives' tale has ragweed ending with the first frost, when actually it ends a good month earlier. It is Alternaria—the kingpin of the molds—that meets a sudden demise with the first frost. Alternaria-sensitive patients are in their glory when there is snow on the ground, and might be ideally suited to man the radar stations in Alaska. In September and October, Alternaria counts are at their highest, perhaps associated with the burning of leaves. Other molds such as Hormodendrum and Helminthosporium are associated with the warmer weather, as opposed to Penicillium and Aspergillus which are household molds.

Summer also means the return of our much maligned associates—bugs. Insects cause allergic symptoms by two methods: the bite or sting of the Hymenoptera group, and the inhalation of particles of the bodies of various insects. Wasp stings are the oldest known form of allergy, as they caused the death of one of the pharaohs in ancient Egypt.[5] Bees, wasps and hornets account for many deaths in this country, and those sensitive to them should carry special treatment kits at all times; a few minutes delay in the administration of epinephrine to such a patient, might be the difference between life and death. Inhalation of particles of insects may cause sneezing and wheezing in a susceptible individual.[6] Both of these forms of insect allergy may be benefitted by hyposensitization.

The insect recognizes no professional bounds. He is as apt to bite the physician as the patient. So this season, beware of bugs. And beware, too, of poison ivy. That pleasant stroll through the woods and underbrush with the Boy Scouts might turn into a

(Concluded on following page)

to relieve summer allergies

Triaminic®

Each timed-release tablet contains phenylpropanolamine hydrochloride 50 mg., pheniramine maleate 25 mg. and pyrilamine maleate 25 mg.

It's a comforting thing to know

For product information see following page

(Advertisement)

nightmare for the botanically uninitiated in the causes of rhus dermatitis (poison ivy, poison oak and poison sumac). Although you may have been careful, your dog may not have noted that it wasn't clover he jumped through, but poison ivy. His return to your side may give you the rhus dermatitis that you so carefully avoided. That heavenly campfire may be emitting particles of rhus oil to produce an airborne contact dermatitis of the exposed areas of the body.

Another fascinating, but rather infrequent type of summer allergy is physical allergy. Some people sneeze on exposure to sunlight, while others break out in rashes, usually on the exposed parts of the body. These rashes may well follow the administration of various photosensitizing drugs, e.g. demethylchlortetracycline.[7] Another form of physical allergy and one that may be lethal in the summer, is cold allergy. Yes, I mean cold allergy, not heat allergy. The cool dip on a hot day with its consequent sudden chilling of the body, may be the coup de grace for a cold sensitive patient.[8] It is customary to write "heart attack" on the death certificate, even though the victim may have been an 18-year-old boy who looks like a Greek god.

Lest the reader be depressed by this saga of afflictions associated with the warmer months, perhaps he should remember that it is also a time for swimming, baseball, lying in the sun and taking that long-planned vacation. So let's all join in a chorus of "In the Good Old Summertime," as we sneeze, wheeze and scratch. Be careful of your suntan lotion, however; it may cause you a contact dermatitis.

References 1. Unger, L.: Bronchial asthma. Charles C. Thomas Co. p. 47, 1946. 2. Samter, M.: Immunological diseases. Little, Brown and Co. p. 513, 1965. 3. Wodehouse, R. P.: Antigenic analysis by gel diffusions: 2. Grass pollen. Int. Arch. Allerg. **6**:65, 1955. 4. Cohart, E. M., and Kandle, R. P.: The Effects of a ragweed control program on ragweed pollen counts, J. Allergy **30**:287, 1959. 5. Woddell, L. S.: Egyptian civilization: Its origin and real chronology and Sumerian origin of Egyptian hieroglyphics. London: Luzak & Co. 1930. 6. Parlato, S. J.: The sandfly (Caddis fly) as an exciting cause of allergic coryza and asthma: II. Its relative frequency. J. Allergy **1**:307, 1930. 7. Ozere, R. L.: Demethylchlortetracycline photosensitivity. Canad. M. A. J. **85**:1199, 1961. 8. Horton, B. T., Braun, G. E., and Roth, G. M.: Hypersensitiveness to colds, JAMA **107**:1263, 1936.

How can he be a sport with a runny nose?



For summer allergies, summer colds, or nasal congestion due to almost any cause, you prescribe quick r-e-l-i-e-f with Triaminic. It's ideal for summer allergies:

1. Acts in 15-30 minutes due to decongestant.
2. Follows up with balanced dual antihistamines.
3. Up to 24-hour 'round the clock relief when dosed one tablet at morning, mid-afternoon and evening.

Summer time is sport time and who can be a sport with a runny nose?

provide patient comfort

Triaminic® relieves summer allergies

Each timed-release tablet contains:

Phenylpropanolamine hydrochloride	50 mg.
Pheniramine maleate	25 mg.
Pyrilamine maleate	25 mg.

Side effects: Occasional drowsiness, blurred vision, cardiac palpitation, flushing, dizziness, nervousness or gastrointestinal upsets.

Precautions: The patient should be advised not to drive a car or operate dangerous machinery if drowsiness occurs. Use with caution in patients with hypertension, heart disease, diabetes or thyrotoxicosis.

(Advertisement)

People keep asking us:

"Why do you call the

FILTER QUEEN

a sanitation system

instead of a vacuum cleaner?"



Only FILTER

(The problem of overcoming increasing air pollution is one of the most urgent facing your institution and the entire commu today. How FILTER QUEEN, through its unique, patented Filter Cone helps combat air pollution while it cleans, should of vital interest to every member of your hospital staff. We hope you will mark these pages and route them accordin



1. Every hospital has its dust and odor problems.

Dramatic smoke test shows how FILTER QUEEN removes air-borne contaminants and offensive odors



2. That's when a FILTER QUEEN is needed.



3. FILTER QUEEN quickly removes air-borne contaminants while it vac

QUEEN helps purify ne air while it cleans!

at is why we call FILTER QUEEN anitation system instead of a vacuum cleaner!

EW OF THE HUNDREDS OF IOSPITALS NOW USING FILTER QUEEN:

ommunity Hospital.....Fresno, California
emorial Hospital.....Atlanta, Georgia
spital.....Columbus, Ohio
unty General Hospital.....Paris, Tennessee
rd Hospital.....Detroit, Michigan
s Hospital.....Ft. Lauderdale, Florida
les City Genl. Hospital..Los Angeles, California
morial Hospitals.....Boston, Massachusetts
College of Virginia.....Richmond, Virginia
stern Hospital.....Minneapolis, Minnesota
Hospital.....Summit, New Jersey
n Hospital.....Port Huron, Michigan
Hospital.....Honolulu, Hawaii
s Memorial Hospital.....Anderson, Indiana
r City Hospital.....Worcester, Massachusetts

The engineers who perfected the FILTER QUEEN machine clearly recognized that all bag-type vacuum cleaners cannot operate with maximum efficiency because they use a porous bag. So, to make suction cleaning action truly efficient, they had to find a way to overcome the leakage in dust and dirt that so often occurs whenever a porous bag is used.

The highly successful result was an entirely *different* air flow principle, known today as Cyclonic Cleaning Action. By using Cyclonic Cleaning Action, FILTER QUEEN'S designers succeeded in not only collecting the dust and dirt normally collected by vacuuming; they also succeeded in trapping almost invisible airborne contaminants that formerly escaped back to repollute the air.

The difference between FILTER QUEEN'S remarkable Cyclonic Cleaning Action and ordinary vacuuming becomes immediately apparent when the Smoke Test pictured at left is made. Smoke, other contaminants and offensive odors virtually disappear. The room not only smells clean—it *is* clean!

The key to this almost magic action is FILTER QUEEN'S patented Sanitary Filter Cone. (See illustration.) Inrushing air, laden with dirt and dust, is deflected by a patented inlet guide as it enters the FILTER QUEEN container, then is whirled away by centrifugal force. Foreign matter heavier than air is forced to the bottom and the sides.

Clean air is filtered through our exclusive Sanitary Filter Cone *above* floor level, leaving smoke as well as dirt and dust trapped in the container. That is why hundreds of hospitals and other institutions insist on the FILTER QUEEN Sanitation System over any type of vacuum cleaner.

Ask your local FILTER QUEEN Distributor to make FILTER QUEEN'S dramatic Smoke Test in your hospital. Then you will *KNOW* why we proudly call it a FILTER QUEEN Sanitation System instead of a "vacuum cleaner."

DOCUMENTARY PROOF: *We would like to send you, with our compliments, an article entitled "Air Hygiene for Hospitals" which appeared in the Journal of the American Medical Association. In this article it is explained what happened to airborne contaminants when a FILTER QUEEN was used in a series of rigidly controlled tests conducted at the Harvard Medical School. Write to Health-Mor, Inc., 203 North Wabash Ave., Chicago, Illinois 60601*



The FILTER QUEEN sanitary filter cone is a scientifically-designed dust separator, composed of a special long-fibred mat of pure cellulose, chemically treated to give it the necessary strength and air-filtering characteristics.

FILTER QUEEN is a product of HEALTH-MOR, INC.,
203 North Wabash Ave., Chicago, Ill. 60601.
In Canada: Filter Queen Corp. Ltd.,
252 Victoria St., Toronto, Ont.
In Mexico: Industrias Filter Queen, S. A.,
Jardin No. 330, Col del Gas, Mexico 15, D. F.

You'll find FILTER QUEEN Sanitation Systems listed in your Yellow Pages under "Vacuum Cleaners". (That's because FILTER QUEEN is fast replacing ordinary vacuum cleaners.)



FILTER QUEEN

The cleaning method that does so much more it has to be called a Sanitation System.



NUMA® DURA-TABS®

for *prolonged* aid to ventilation

Each Numa Dura-Tab provides:

theophylline	225 mg.
ephedrine HCl	50 mg.
butabarbital	25 mg.

(Warning: butabarbital may be habit-forming.)

Numa Dura-Tabs provide *prolonged* three-way action to ease breathing. Theophylline, a potent bronchodilator with minimal effect on the CNS, opens air passages and reduces bronchial spasm. Ephedrine HCl improves breathing capacity through its decongestant action. Butabarbital, a mild sedative, allays fear and apprehension.

Dosage: One Numa Dura-Tab every 8 to 12 hours helps keep the asthmatic patient symptom-free all day/all night.

Precautions: Use with caution in cardiovascular or hyperthyroid disease, severe hypertension, circulatory collapse, prostatic hypertrophy, or glaucoma.

WYNN Pharmaceuticals, Inc., Phila., Pa. 19132 • Manufacturers of QUINAGLUTE® DURA-TABS®
(Quinidine Gluconate 5 gr.)

There are 59,700* undetected diabetics in Florida

Most of these are probably among patients over 40; the overweight; relatives of diabetics, and mothers of large babies. By the time polyphagia, polyuria, polydipsia, pruritus or other overt symptoms of diabetes appear, damage may have been done that could have been minimized. DEXTROSTIX® gives you a reliable blood-glucose estimate in 60 seconds.

Why Wait?



*Based on Statistical Report, U.S. Dept. Commerce, ed. 86, and Fisher, G. F., and Vavra, H. M.: Pub. Health Rep. 80:961 (Nov.) 1965.

Note: DEXTROSTIX is not meant to replace the more precise analytical laboratory procedures such as needed in glucose tolerance testing.

AMES COMPANY, Division Miles Laboratories, Inc., Elkhardt, Indiana, U.S.A. 42867

Ames



"George wants to know if it's okay to take his cold medicine now, Doctor, instead of seven o'clock?"



The long-continued action of Novahistine LP should help you both get a good night's sleep. Two tablets in the morning and two in the evening will usually provide round-the-clock relief by helping clear congested air passages for freer breathing. Novahistine LP also helps restore normal mucus secretion and ciliary activity—normal physiologic defenses against infection of the respiratory tract. Use cautiously in individuals with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Caution ambulatory patients that drowsiness may result. Each Novahistine LP tablet contains: phenylephrine hydrochloride, 25 mg., and chlorpheniramine maleate, 4 mg.

NOVAHISTINE® LP

DOW **PITMAN-MOORE** Division of The Dow Chemical Company, Indianapolis

Florida Medical Association

735 Riverside Ave., P. O. Box 2411

Jacksonville, Florida 32203

Officers

George S. Palmer, M.D., President	Tallahassee
W. Dean Steward, M.D., President-Elect	Orlando
William J. Dean, M.D., Vice President	St. Petersburg
Franklin J. Evans, M.D., Speaker of the House	Coral Gables
James T. Cook, M.D., Vice Speaker	Marianna
Floyd K. Hurt, M.D., Secretary-Treasurer	Jacksonville
H. Phillip Hampton, M.D., Immediate Past President	Tampa
W. Harold Parham, Executive Director	Jacksonville

Councils

Jesse W. Castleberry, M.D., Chairman, Council on Allied Professions and Vocations	Orlando
John J. Cheleden, M.D., Chairman, Judicial Council	Daytona Beach
Joseph C. VonThron, M.D., Chairman, Council on Legislation and Public Agencies	Cocoa Beach
Jack A. MaCris, M.D., Chairman, Council on Medical Economics	St. Petersburg
David W. Martin, M.D., Chairman, Council on Medical Education and Hospitals	West Palm Beach
William R. Daniel, M.D., Chairman, Council on Medical Services	Orlando
Richard C. Dever, M.D., Chairman, Scientific Council	Miami
Warren W. Quillian, M.D., Chairman, Council on Special Activities	Coral Gables
Edward W. Cullipher, M.D., Chairman, Council on Specialty Medicine	Miami
Mason Romaine III, M.D., Chairman, Council on Voluntary Health Agencies	Jacksonville

Information for Authors

Manuscripts submitted for publication in the Journal of the Florida Medical Association should be double or triple spaced on white bond, including title page, illustration legends, charts and graphs, table headings, footnotes and bibliography.

Submit original manuscript and two copies. Copying by electrostatic dry process (not wet process) is preferred to tissue copies. Retain one additional copy in your office for proofreading. All material is submitted with the understanding it is subject to editing.

Photographs should be submitted as 5x7 glossy prints, untrimmed and unmounted; number each photograph *lightly* on the back with pencil and indicate top. Charts, graphs and medical illustrations should be submitted as india ink drawings on white gloss paper; remember to make details large enough to allow for photographic reduction. It is a policy of the Journal that authors pay for any cuts made to illustrate their papers.

Titles should be short, specific and clear. Omit phrases such as "The Use of," "Observations on." If paper was presented at a meeting, indicate name of organization, city, month, day and year.

Only original papers not previously published are accepted for publication. Manuscripts submitted for publication are subject to review and approval by the Journal Publications Committee. Except by invitation, only papers from members of the Florida Medical Association are considered for publication.

References should be typewritten, double or triple spaced, beginning on a new sheet of paper entitled "References." Number references in the text in order of citation and prepare bibliography in the same order. Bibliographies should conform to the style of the Index Medicus. The Journal prints only bibliographies of eight references or less; bibliographies of more than eight references are referred to at the end of the paper with the statement "References are available from the author upon request."

All manuscript pages should be numbered consecutively. Within the manuscript, numbers one to nine should be spelled out except when used for units of measurement; for numbers above nine, numerals should be used. Dorland's Medical Dictionary and Webster's International Dictionary may be used as standard references. Scientific names for drugs should be used when possible. Copyright or trade names of drugs should be capitalized.

A Building Block approach to treating hypertension

With these three therapeutic building blocks you can create a once-a-day regimen to fit almost any degree of hypertension. See the following pages for details . . .



Consider starting your hypertensives on this basic thiazide

Enduron eliminates sodium around the clock, yet is relatively sparing of potassium

Enduron is a true 24-hour single-dose thiazide. Its sodium excretion is not squeezed into an abrupt peak during the first several hours. It is well-sustained in a plateau-like effect — with little reduction in intensity during the first 12 hours, and decline thereafter only gradual.

Potassium loss, in contrast, reaches an early minor peak. Then it subsides rapidly. Moreover, doses larger than 5 mg. have little added effect on potassium. Thus doubling the dose from 5 to 10 mg. approximately doubles sodium excretion—yet increases potassium loss little or none.

Use Enduron once a day as an ideal starting therapy in mild hypertension. Use it, too, as a basic therapeutic building block with which other agents can be joined, for managing your more resistant hypertensives.

Once a day, every day

ENDURON®
METHYCLOTHIAZIDE



DAILY DOSAGE RANGE	Minimum	Usual	Intermediate	Maximum
	2.5 mg. tablet	5 mg. tablet	7.5 mg.	10 mg.

See Brief Summary on final page of advertisement.

To build added response, shift to Enduronyl

ABBOTT

The deserpidine component compares favorably to reserpine, but with reduced side effects

The rauwolfia component of Enduronyl is deserpidine (Harmonyl®), a purified crystalline alkaloid. It is comparable to reserpine in its antihypertensive and tranquilizing activity. Yet it produces less tendency toward typical rauwolfia side effects such as drowsiness, lethargy, stuffy nose, depression, etc.

Patient acceptance has been excellent.

Enduronyl comes in two strengths: regular and Forte. Both provide 5 mg. of Enduron. The variation is where most needed: in the deserpidine. These scored tablets give a surprisingly flexible choice of doses (see below).

Use Enduronyl for your patients within the broad range of mild to moderate hypertension. Dosage is *once* a day: this means Enduronyl will generally cost patients less than equivalent drugs taken two or three times daily.



Once a day, every day

ENDURONYL®

METHYCLOTHIAZIDE 5 MG. WITH DESERPIDINE 0.25 MG.

ENDURONYL FORTE

METHYCLOTHIAZIDE 5 MG. WITH DESERPIDINE 0.5 MG.

	Minimum	Usual	Intermediate	Maximum
DAILY DOSAGE RANGE	2.5 mg. methyclothiazide 0.125 mg. deserpidine	5 mg. methyclothiazide 0.25 mg. deserpidine	7.5 mg. methyclothiazide 0.375 mg. deserpidine	10 mg. methyclothiazide 0.5 mg. deserpidine
DAILY DOSAGE RANGE	2.5 mg. methyclothiazide 0.25 mg. deserpidine	5 mg. methyclothiazide 0.5 mg. deserpidine	7.5 mg. methyclothiazide 0.75 mg. deserpidine	10 mg. methyclothiazide 1 mg. deserpidine

See Brief Summary on final page of advertisement.

704075

Eutonyl affords a different kind of basic therapy for moderate to severe cases

ABBOTT

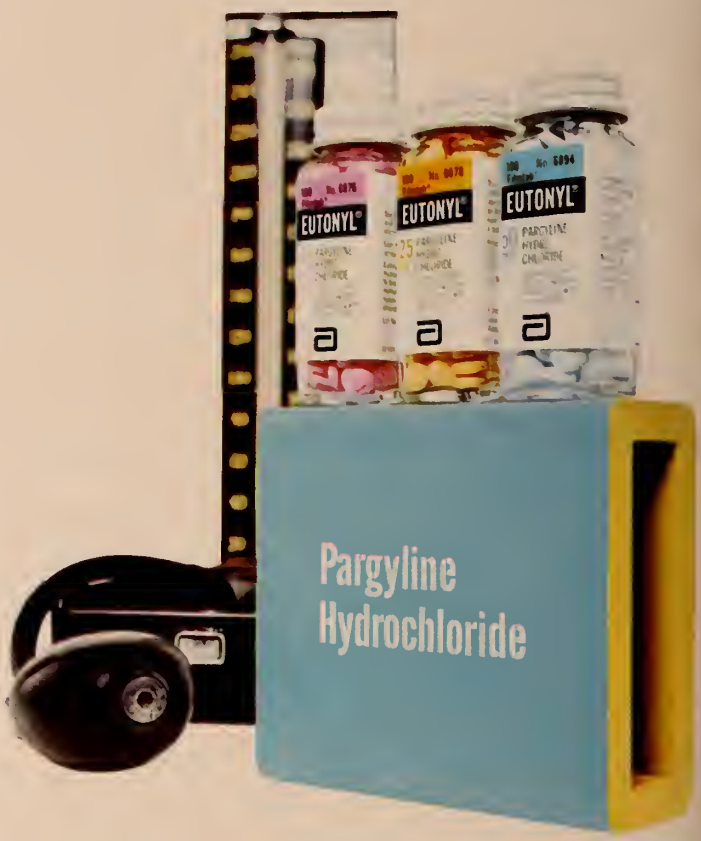
Effect tied to reduced peripheral vascular resistance; no central depressant action

Eutonyl is a unique nonhydrazine agent. It is reported to act by reducing peripheral vascular resistance, with little or no effect upon cardiac output.[1,2]

In clinical trials, significant reductions in mean blood pressure were seen in 84% of patients studied — including some unusually difficult cases. Eutonyl lowers diastolic in proportion to systolic, and in half of the cases studied, reductions in the sitting and recumbent positions were nearly as great as in the standing position.

Most important: There is no central depressant action. In fact, many patients reported an *increased* sense of well being.

Here, then, is a highly effective *basic treatment* for moderate to severe cases—and one that will not hamper your patient with lethargy or drowsiness while on treatment.



Once a day, every day

EUTONYL®
PARGYLINE HYDROCHLORIDE

DAILY DOSAGE RANGE	Minimum	Usual starting	Intermediate	Maximum
	10 mg. tablet	25 mg. tablet	50 mg. tablet or as needed	200 mg.

1. Brest, A. N., et al., Cardiac and Renal Hemodynamic Response to Pargyline, Ann. N. Y. Acad. Sci., 107-1016, 1963.
2. Winsor, T., Pargyline Hydrochloride, Hypertension, Urinary Tryptamine, and Vascular Reflexes, Geriatrics, 19:598, Aug., 1964.

See Brief Summary on final page of advertisement.

Eutron adds thiazide for enhanced therapy with milder side effects

ABBOTT

Only a 7/4 mm. span between standing and recumbent pressures—reduced chance of orthastatic hypotension.

The combining of Eutonyl and Enduron in Eutron permits a significantly greater antihypertensive effect than with either agent used alone. This in turn may allow therapeutic success with lesser dosage—and correspondingly milder side effects.

Indeed, fully 94.5% of all patients studied during clinical trials continued on therapy uninterrupted by side effects.

Most striking was the drug's action in lowering blood pressure to *nearly equal levels in all body positions*. Total average spread between standing and recumbent readings (after treatment) was only 7/4 mm. Hg.

Thus, in your moderate to severe cases, Eutron affords a usually smooth course of therapy, with reduced likelihood of orthostatic effects. And, because of the thiazide component, Eutron may be used in the presence of congestive heart failure.





Once a day, every day

EUTRON™

PARGYLINE HYDROCHLORIDE 25 MG.
WITH METHYCLOTHIAZIDE 5 MG.

DAILY DOSAGE RANGE	Minimum	Usual starting	Intermediate	Maximum
	12.5 mg. pargyline hydrochloride and 2.5 mg. methyclothiazide	25 mg. pargyline hydrochloride and 5 mg. methyclothiazide	37.5 mg. pargyline hydrochloride and 7.5 mg. methyclothiazide	50 mg. pargyline hydrochloride and 10 mg. methyclothiazide

See Brief Summary on final page of advertisement.

TM—Trademark

704075

ENDURON®

METHYCLOTHIAZIDE

ENDURONYL®

Each tablet contains Methyclothiazide 5 mg.
with Deserpidine 0.25 mg. or 0.5 mg.

Indications: Enduron is used to control edema and mild hypertension. Also used with other drugs for hypertension. Enduronyl is used in mild to moderately severe hypertension.

Contraindications: Neither Enduron nor Enduronyl should be used in severe renal disease (except nephrosis) or shutdown; in severe hepatic disease or impending hepatic coma; in patients sensitive to thiazides. Enduronyl is contraindicated in severe mental depression, active peptic ulcer, and ulcerative colitis.

Warnings: Consider possible sensitivity reactions in patients with a history of allergy or asthma. Avoid use of enteric-coated potassium tablets, as these may induce serious or fatal small bowel lesions; if added potassium intake is desired, dietary supplementation is recommended. Coated potassium tablets should be reserved for cautious use when adequate dietary supplementation is impractical.

Precautions and Adverse Reactions: Use thiazides with caution in severe renal dysfunction. Caution is also necessary with impaired hepatic function or progressive liver disease. During intensive or prolonged thiazide therapy, watch chloride and potassium levels (especially the latter if patient is on digitalis). In surgical patients, thiazides may alter response to vasopressors and tubocurarine. Use thiazides with caution in pregnancy (bone marrow depression, thrombocytopenia, or altered carbohydrate metabolism are possible in certain newborn). Occasional thiazide side effects also include blood dyscrasias; elevations of BUN, serum uric acid, or blood sugar; electrolyte imbalance, g.i. disturbances, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice, pancreatitis, and gout.

Use Enduronyl with caution in patients with a history of peptic ulcer, as rauwolfias may increase gastric secretion. Discontinue at the first sign of mental depression. Rauwolfias may increase hypotensive effects of surgery or anesthesia, and are best discontinued two weeks prior. They also lower the convulsive threshold in epilepsy. Other possible rauwolfia side effects include drowsiness, nasal stuffiness, nausea, weight gain, and diarrhea. Less frequent complications of deserpidine therapy are aggravation of peptic ulcer, epistaxis, and skin eruption. Alcohol, barbiturates or narcotics may potentiate action of deserpidine.

EUTONYL®

PARGYLINE HYDROCHLORIDE

EUTRON™

Each tablet contains Pargyline Hydrochloride 25 mg.
with Methyclothiazide 5 mg.

Indications: For treatment of patients with moderate to severe hypertension, especially those with severe diastolic hypertension. Not recommended for use in patients with mild or labile hypertension amenable to therapy with sedatives and/or thiazide diuretics alone.

Contraindications: Pheochromocytoma, advanced renal disease, paranoid schizophrenia and hyperthyroidism. Until further experience is gained, not recommended for use in patients with malignant hypertension, children under 12, or pregnant patients.

Concomitant use of the following is contraindicated: other monoamine oxidase inhibitors; parenteral forms of reserpine or guanethidine; sympathomimetic drugs; foods high in tyramine such as cheese; imipramine and amitriptyline, or similar antidepressants; methyldopa. Interval of two weeks should separate therapy and use of these agents.

Warnings: Pargyline hydrochloride is a monoamine oxidase inhibitor. Warn patients against eating cheese, and using alcohol, proprietary drugs or other medication without the knowledge of the physician. When necessary to administer alcohol, narcotics (meperidine should be avoided), antihistamines, anesthetics, barbiturates, chloral hydrate and other hypnotics, sedatives, tranquilizers, or caffeine, these can be used cautiously at a dosage of ¼ to 1/5 the usual amount. Adjust dose of anesthetic agents to response of patient. Avoid parenteral administration where possible. Withdraw pargyline two weeks before elective surgery.

Warn patients about the possibility of postural hypotension. Those with angina or other evidence of coronary disease should not increase physical activity. Pargyline may lower blood sugar. Avoid use of enteric-coated potassium tablets, as these may induce serious or fatal small-bowel lesions; if added potassium intake is desired, dietary supplementation is recommended. Coated potassium tablets should be reserved for cautious use when adequate dietary supplementation is impractical.

Precautions: Measure blood pressure while patient is standing to determine antihypertensive effect. Use with caution in hyperactive or hyperexcitable persons. Such persons may show increased restlessness and agitation. Withdraw drug during acute febrile illness. Watch patients with impaired renal function for increasing drug effects or elevation of BUN and other evidence of progressive renal failure; withdraw drug if such alterations persist and progress. Use with caution in patients with liver dysfunction or progressive liver disease. As with all new drugs, complete blood counts, urinalyses, and liver function tests should be performed periodically. With prolonged therapy, examine patients for change in color perception, visual fields, and fundi.

During intensive or prolonged methyclothiazide therapy, watch chloride and potassium levels (especially latter if patient is on digitalis). Methyclothiazide also may reduce arterial response to pressor amines. Use thiazides with caution in pregnancy (bone marrow depression, thrombocytopenia, or altered carbohydrate metabolism are possible in certain newborns). Thiazide drugs may increase responsiveness to tubocurarine.

Side Effects: Pargyline may be associated with orthostatic hypotension. Mild constipation, slight edema, dry mouth, sweating, increased appetite, arthralgia, nausea and vomiting, headache, insomnia, difficulty in micturition, nightmares, impotence, delayed ejaculation, rash, and purpura have been encountered with pargyline. Hyperexcitability, increased neuromuscular activity (muscle twitching) and other extra-pyramidal symptoms have been reported. Drug fever is extremely rare. Congestive heart failure has been reported in a few patients with reduced cardiac reserve.

Thiazide side effects also include blood dyscrasias, elevation of BUN, serum uric acid, or blood sugar, electrolyte imbalance, g.i. disturbances, headache, dizziness, paresthesia, weakness, skin rash, photosensitivity, jaundice, pancreatitis, and gout. Nocturia has been observed with the combination.

ABBOTT

704075

NEWS

Guild of Prescription Opticians Appoints Committee to Draft Formal Standards

The Guild of Prescription Opticians of America, Inc. has named a special committee to draft a set of formal standards for stores which are operated by members of the association.

Guild President William B. Fluharty Jr. announced formation of the committee, upon direction of the Guild board of directors. H. Clinton Green, of Chicago, a past Guild president, is chairman of the committee, which also will propose ways of policing the standards once they are adopted.

Fluharty said he hopes that the committee will complete the writing of the standards in time for presentation to Guild members at the annual meeting in Philadelphia, May 11 to 14, 1967.

He pointed out that opticians are licensed in only 17 states and that efforts to win licensing laws elsewhere have failed since 1956. This has created a growing awareness of the need for a national identifiable standard for optical dispensing stores.

FMA Member O'Malley Receives National Award

Dr. Joseph O'Malley, Orlando plastic and reconstructive surgeon and FMA member, has been presented with a National Recognition Award by Freedoms Foundation of Valley Forge.

The award was presented to Dr. O'Malley "For his brilliant personal medical and surgical leadership in Viet Nam against disease, physical suffering and mutilation from war and natural causes."

ACG Announces 1967 Rorer Awards

The American College of Gastroenterology has announced the 1967 Rorer Awards Contest for the best papers in gastroenterology.

First, second and third prize awards of $500, $300 and $200 respectively will be given in two categories: the best unpublished papers in gastroenterology or an allied subject and the best papers published in the American Journal of Gastroenterology.

Entries must be received by June 15, 1967 and should be addressed to the Research and Scientific Investigation Committee, American College of Gastroenterology, 33 West 60th Street, New York, N.Y. 10023.

AMA President Hudson To Address OCMS

Dr. Charles L. Hudson, president of the American Medical Association, will address the monthly meeting of the Orange County Medical Society, April 19, Community Room, First National Bank Building, Orlando.

FDA's Goddard Suggests Physician TV Network

U.S. Food & Drug Administration Director James L. Goddard suggested recently a private, nationwide television network to keep doctors posted on new research and treatment advances — including any fresh evidence on effects of drugs.

He advocated that both federal and private health officials "seriously give thought" to the concept as a possible new technique for more quickly and widely disseminating information to the average physician.

Addressing a panel discussion on federal-private partnership in the health field at the annual meeting of the American College of Cardiology, Goddard said that the Federal Communications Commission already has made a specific television wave band available for medical education.

Woman's Auxiliary

Attention

Don't Keep Your Talents To Yourselves

Enter Them For All To See In The

Benefit Art Show

FMA Convention, May 10-14, 1967, Americana Hotel

Bal Harbour

The Auxiliary to the FMA will sponsor this Art Show to raise money to benefit the American Medical Association Education and Research Foundation (AMA-ERF). This Foundation sponsors six programs, each of which has an important place in the world of medical education and research. They are supported entirely by contributions from physicians, medical societies, medical auxiliaries and private industry.

Your medical auxiliaries are actively concerned with three of these projects:

Funds for Medical Schools

AMA-ERF raises each year over one million dollars of unrestricted funds which are distributed to the deans of approved medical schools to defray the additional costs of medical training.

Institute for Biomedical Research

This AMA-ERF facility opened in 1965. The institute is designed to provide the maximum opportunity for outstanding scientists to devote their full energies to basic research without outside distractions.

Student Loan Program

Since the Student Loan Program started, over 7,000 bank loans have been granted to medical students, interns and residents each year. In money, this amounts to almost one million dollars each month. By the end of 1965, more than 27,511 loans, worth almost $32,000,000, had been made. One out of every six medical students, interns and residents has received at least one AMA-ERF loan.

Doctors and their wives are eligible to enter. Prizes will be donations to the American Medical Association Education and Research Foundation in the name of the winners.

Registration Deadline — April 30, 1967

Exhibit Rules and Regulations

1. All entries must be original work.
2. Pictures must be framed and wired for hanging.
   (Stands will be provided for sculpture, etc.)
3. Each entry must have a typed card attached indicating
   Name, Address, Medium, Dimensions and Title.
4. No more than two entries may be entered per person for each category.
5. Only one artist's name should be listed for each registration slip.
6. A registration fee of $5.00 will be charged for each two (2) entries. The same fee of $5.00 (minimum) applies to a single entry.
7. All registration slips and checks must be sent in *together,* no later than April 30, 1967. *No entries will be accepted otherwise.*
8. All pre-registered entries are to be delivered by hand to the foyer of the Convention Hall at the Americana Hotel, no later than noon on Thursday, May 11. *Shipped entries will be refused.*
9. All entries must remain on exhibition until 4:30 p.m. on Saturday, May 13.
10. All entries must be picked up at the Convention Hall of the Americana Hotel, no later than 6:00 p.m., Saturday, May 13.

Kindly enter my registration to show in the Benefit Art Show.

Fee of $_____ for_____ entries is enclosed. I agree to abide by the rules and regulations set forth for exhibiting material in the show.

Name _____

Address _____

City _____ County _____

I will be showing in the following categories: Please check [✓] the appropriate category (categories) applying to your entry (entries).

- ☐ A Painting, Traditional Oil
- ☐ B Painting, Modern Oil
- ☐ C Painting, Other Media (will include acrylics, collage, water color, pastels, etc.)
- ☐ D Sculpture
- ☐ E Graphics (will include pen and ink, charcoal, photography, etc.)
- ☐ F Pottery and Ceramics
- ☐ G Other Crafts (will include mosaic, weaving, jewelry, etc.)

A registration fee of $5.00 will be charged for each 2 entries. Make checks payable to: Mrs. Thomas C. Kenaston Jr., 1305 Rockledge Dr., Rockledge, Florida 32955.

Registration Deadline April 30, 1967

New
low-cost tetracycline/antifungal therapy

for broad-spectrum activity
plus specific antifungal prophylaxis
at significant patient savings

Whenever tetracycline is indicated in these candidates for Candida:

1. diabetic patients



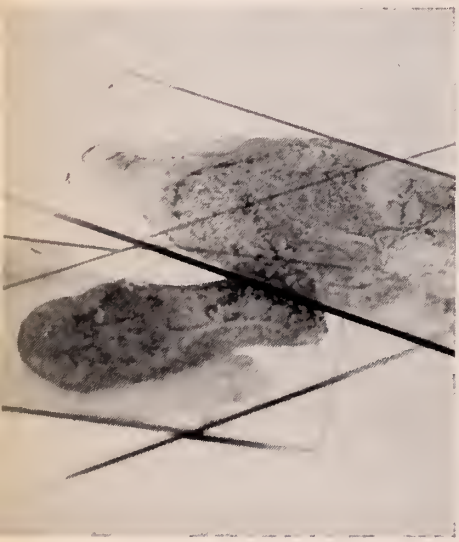
2. nonpregnant women with a history of recent or recurrent monilial vaginitis



3. elderly or debilitated patients



4. patients with a past history of moniliasis



5. patients on long-term tetracycline or corticosteroid therapy



PRESCRIBING INFORMATION. For complete infor tion consult Official Package Circular. *Indications:* fections of respiratory, gastrointestinal and genitourir tracts and skin and soft tissues due to tetracycline-se tive organisms, in patients with increased susceptibi to monilial infections. *Contraindications:* The dru contraindicated in patients hypersensitive to its con nents. *Warnings:* Photodynamic reactions have been duced by tetracyclines. Natural and artificial sunl should be avoided during therapy. Stop treatment if discomfort occurs. With renal impairment, systemic a mulation and hepatotoxicity may occur. In this situat lower doses should be used. Tooth staining and en hypoplasia may be induced during tooth develop (last trimester of pregnancy, neonatal period and c hood.) *Precautions:* Bacterial superinfections may oc Infants may develop increased intracranial pressure bulging fontanels. In gonorrheal therapy, serologic for syphilis should be conducted initially and mo for 3 months. *Adverse Reactions:* Glossitis, stoma nausea, diarrhea, flatulence, proctitis, vaginitis, derma and allergic reactions may occur. *Usual Adult Dosa* capsule q.i.d. Continue for 10 days in Beta-hemolytic s tococcal infections. Administer one hour before or hours after meals. *Supplied:* Capsules, bottles of 1 100. Each capsule contains tetracycline phosphate plex equivalent to 250 mg. tetracycline HCl activit 250,000 units of nystatin. For Oral Suspension, 12 tetracycline and 125,000 u. nystatin/5 ml., 60 ml. bo

BRISTOL
BRISTOL LABORATORIES
Division of Bristol-Myers Company
Syracuse, New York

Tetrex-F®

Each capsule contains tetracycline phosphate complex equivalent to tetracycline hydrochloride 250 mg. and nystatin 250,000 u



UP TO 10-12 HOURS' CLEAR BREATHING ON ONE TABLET

Dimetapp® Extentabs®

(Dimetane® [brompheniramine maleate], 12 mg.; phenylephrine HCl, 15 mg.; phenylpropanolamine HCl, 15 mg.)

sinusitis, colds, or U.R.I., metapp lets congested patients eathe easy again. Each Extentab ings welcome relief all day or all night, ually without drowsiness or over- mulation. Its key to success? The metapp formula—Dimetane (brom- eniramine maleate), a potent anti- stamine reported in one study to have cited side effects as few as the placebo,* amed with decongestants phenyl- hrine and phenylpropanolamine—a dependable 10- to 12-hour form.

F. C. New England

Contraindications: Patients hypersensitive to antihistamines. Not recommended for use during pregnancy.

Precautions: Until the patient's response has been determined, he should be cautioned against engaging in operations requiring alertness. Administer with care to patients with cardiac or peripheral vascular diseases or hypertension.

Side Effects: Hypersensitivity reactions including skin rashes, urticaria, hypotension and thrombocytopenia have been reported on rare occasions. Drowsiness, lassitude, nausea, giddiness, dryness of the mouth, mydriasis, increased irritability, or excitement may be encountered.

Dosage: 1 Extentab morning and evening, or as needed.

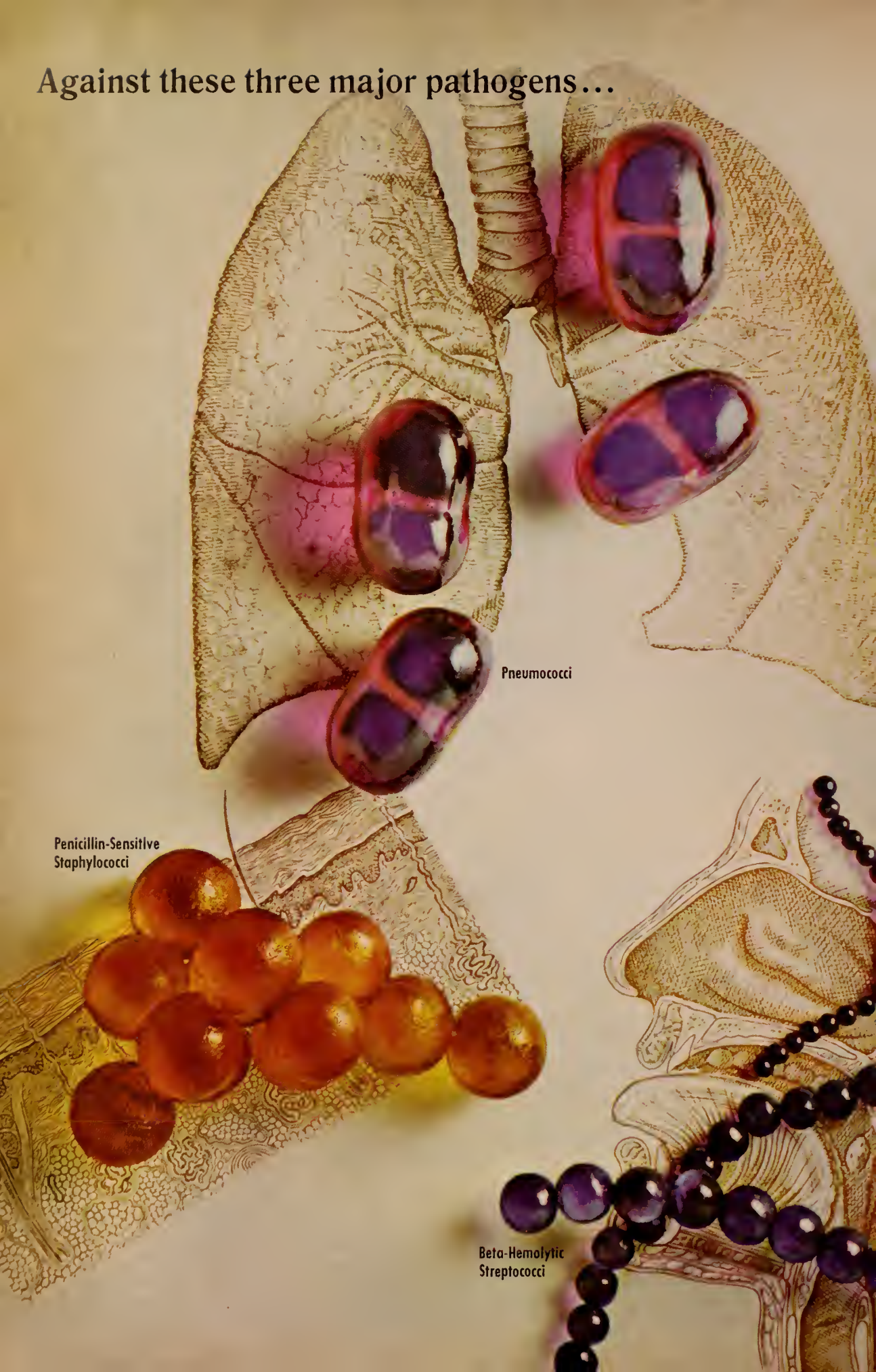
Supplied: Bottles of 100 and 500.

Also available: Dimetapp® Elixir for conventional *t.i.d.* or *q.i.d.* dosage. See package insert for further details.

A. H. ROBINS CO., INC.
RICHMOND, VIRGINIA 23220

A·H·ROBINS

Against these three major pathogens…



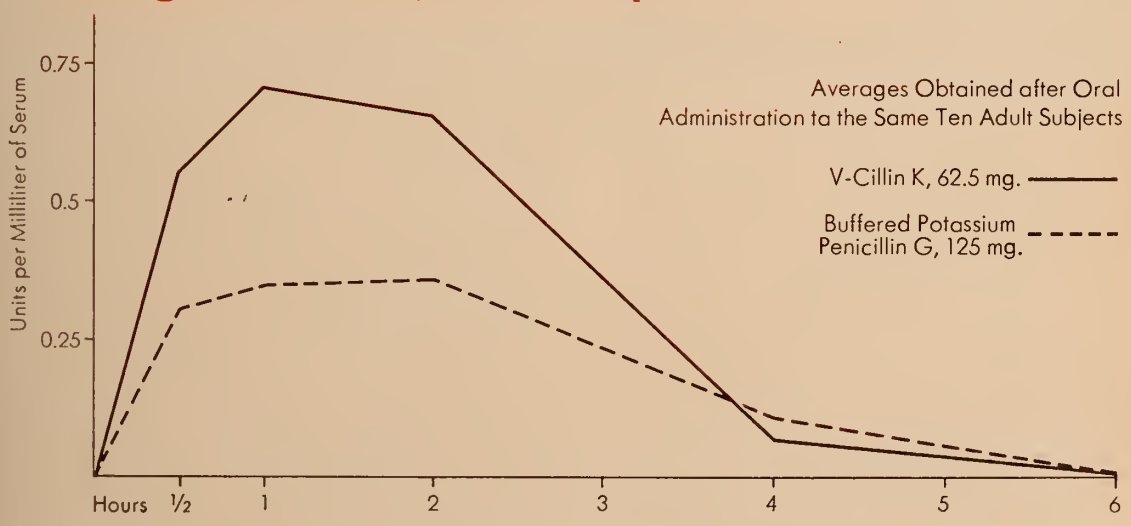
V-Cillin K® provides unexcelled oral antibacterial activity

because it combines a high degree of in-vitro activity...

Antibiotic	Staph. Aureus (Penicillin-Sensitive) MIC (mcg./ml.) Median	Range	Streptacaccus, Group A MIC (mcg./ml.) Median	Range	Diplacaccus Pneumaniae MIC (mcg./ml.) Median	Range
Penicillin V	0.02	0.02-0.04	0.02	0.003-0.4	0.01	0.005-0.2
Penicillin G	0.02	0.005-1.6	0.005	0.002-0.2	0.02	0.01-0.1
Methicillin	1.6	0.4-6.3	0.2	0.1-0.4	0.2	0.1-1.6
Oxacillin	0.4	0.1-3.1	0.04	0.02-0.4	0.1	0.04-0.8
Claxacillin	0.2	0.2-0.8	0.1	0.1-0.8	—	—
Nafcillin	0.4	0.2-0.8	0.04	0.02-0.1	0.02	0.02-0.2
Ampicillin	0.2	0.1-0.8	0.02	0.01-0.04	0.02	0.01-0.04

Adapted from Klein, J. O., and Finland, M.: New England J. Med., 269 1019, 1963.

with high blood levels, even in the presence of food



Adapted from Griffith, R. S., and Black, H. R.: Current Ther. Res., 6 253, 1964.

V-Cillin K® Lilly 700157

Potassium Phenoxymethyl Penicillin

(See next page for prescribing information

New 500 mg. tablets...a more convenient way to give high doses



Description: V-Cillin K is the potassium salt of V-Cillin® (phenoxymethyl penicillin, Lilly.) This chemically improved form combines acid stability with immediate solubility and rapid absorption. Higher serum levels are obtained more rapidly with this penicillin than with equal oral doses of penicillin G. The higher serum levels and acid stability of V-Cillin K make it a more dependable penicillin for oral use.

V-Cillin K Pediatric, is an oral solution of clinically proved V-Cillin K in teaspoon dosage form. When mixed as directed, each 5 cc. (approximately one teaspoonful) will contain 125 mg. (200,000 units) phenoxymethyl penicillin as the potassium salt.

Indications: V-Cillin K has been shown to be effective in the treatment of streptococcus, pneumococcus, and gonococcus infections as well as infections caused by sensitive strains of staphylococci. It may be used for the prophylaxis of streptococcus infections in patients with a history of rheumatic fever and for the prevention of bacterial endocarditis after tonsillectomy and tooth extraction in those patients with a history of rheumatic fever or congenital heart disease.

Contraindication: V-Cillin K should not be administered to a patient with a history of penicillin hypersensitivity.

Precautions: V-Cillin K should be used cautiously, if at all, in a patient with a strongly positive history of allergy. Reactions occur more frequently in individuals with bronchial asthma or other allergies or in those who have previously demonstrated sensitivity to penicillin. If hypersensitivity reactions occur, the drug should be discontinued.

Adverse Reactions: Although serious allergic reactions are less common with administration of oral penicillin than with intramuscular forms, skin rash, symptoms resembling those of serum sickness or other manifestations of penicillin allergy may occur. When penicillin is administered, measures for treating anaphylaxis should be readily available. Those include epinephrine, oxygen, and pressor drugs for relief of immediate allergic manifestations as well as antihistamines and corticosteroids for delayed effects.

The use of antimicrobial agents may be associated with the overgrowth of antibiotic-resistant organisms, in such a case, antibiotic administration should be stopped and appropriate measures taken.

Administration and Dosage: For Tablets V-Cillin K and for V-Cillin K, Pediatric, the usual dosage ranges from 125 mg. (200,000 units) three times a day to 500 mg. (800,000 units) every four hours. For infants, the daily dosage may be 50 mg. per Kg. of body weight divided into three doses.

Beta-hemolytic streptococcus infections without associated bacteremia may be treated with 200,000 to 400,000 units three times a day. Therapy should be continued for a minimum of ten days to prevent development of rheumatic fever and/or other serious complications. Dosage for routine streptococcus prophylaxis in patients with a history of rheumatic fever or congenital heart disease may be 200,000 units once or twice daily. When such patients undergo tonsillectomy, tooth extraction, or other minor surgery, the prophylactic dose should be 500,000 units every six hours given two days prior to surgery and for two days postoperatively. If oral medication is not feasible on the day of surgery, parenteral therapy should be considered. Mild to moderate severe pneumococcus pneumonia has been treated effectively with 250 mg. every six hours.

In staphylococcus infections, 400,000 units or more should be given every six to eight hours in conjunction with indicated surgical procedures.

For gonorrhea in males, 500 mg. (800,000 units) every six hours for three doses may be employed; in females, 500 mg. every four hours for six doses are recommended. Patients with a suspected lesion of syphilis should have a dark-field examination before receiving penicillin and monthly serologic tests for a minimum of three months.

How Supplied: Tablets V-Cillin K, U.S.P., 125 mg. (200,000 units) bottles of 50 and 100, 250 mg. (400,000 units), and 500 mg. (800,000 units) in bottles of 24 and 100.

V-Cillin K, Pediatric, for Oral Solution, 125 mg. (200,000 units) 5 cc. of solution, in 40, 80, and 150-cc.-size packages.

Additional information available to physicians upon request. Eli Lilly and Company, Indianapolis, Indiana 46206.

Lilly

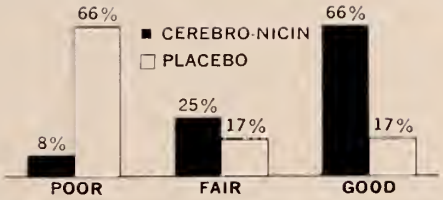
For the treatment of

apathy
irritability
forgetfulness
confusion

in the aging patient

Cerebro-Nicin®

A GENTLE CEREBRAL STIMULANT AND VASODILATOR



CEREBRO-NICIN® New double-blind study* shows how effectively senility can be forestalled. Four times as many aging patients showed striking improvement.

*A Double-Blind Study of Cerebro-Nicin, Therapy for the Geriatric Patient, R. Goldberg, Jrnl. of the Amer. Ger. Soc., June, 1964.

EACH CEREBRO-NICIN CAPSULE CONTAINS:

Pentamethylene Tetrazole	.100 mg.
Nicotinic Acid	.100 mg.
Ascorbic Acid	.100 mg.
Thiamine HCl	25 mg.
l-Glutamic Acid	50 mg.
Niacinamide	5 mg.
Riboflavin	2 mg.
Pyridoxine	2 mg.

DOSAGE: One capsule t.i.d. or as prescribed by physician.

AVAILABLE: Bottles of 100, 500, 1000 capsules.
Also elixir pint bottles.

CONTRAINDICATIONS: There are no known contraindications to Pentamethylene Tetrazole although caution should be exercised when treating patients with a low convulsive threshold.

Most persons experience a flushing or tingling sensation after taking a higher potency niacin-containing compound. As a secondary reaction some will complain of nausea and other sensations of discomfort. This reaction is transient and is rarely a cause of discontinuance of the drug if the patient is forewarned to expect the reaction.
Federal law prohibits dispensing without a prescription.

Write for literature and samples . . .

BROWN

THE BROWN PHARMACEUTICAL CO.
2500 W. Sixth Street,
Los Angeles, California 90057

REFER TO PDR

TUCKER HOSPITAL, INC.

212 West Franklin Street

Richmond, Virginia

A private hospital for diagnosis and treatment of psychiatric and neurological disorders. Hospital and out-patient services.

James Asa Shield, M.D.
George S. Fultz, Jr., M.D.
Catherine T. Ray, M.D.

Weir M. Tucker, M.D.
Edward W. Gamble, III, M.D.
Gerald W. Atkinson, M.D.


ECONOMICAL!
CORDRAN®
FLURANDRENOLONE
Half Strength
Lilly
cream and ointment
Additional information available to physicians upon request.
Eli Lilly and Company, Indianapolis, Indiana 46206.
600811



Scientific Articles

Palliative Operations in Congenital Heart Disease

Current Status

JAMES L. GUEST JR., M.D., L. JEROME KROVETZ, M.D.,
THOMAS D. BARTLEY, M.D., GEROLD L. SCHIEBLER, M.D.,
and MYRON W. WHEAT JR., M.D.

The development of cardiac surgery in the last 20 years has made possible the correction of many intracardiac lesions previously considered inoperable. As experience has accumulated, however, it has become apparent that correction of every defect in infancy is not always feasible. This may be due either to the complexity of the anomaly or to the greater mortality associated with cardiopulmonary bypass operations in infants under two years of age. In many situations, extracardiac procedures can be employed to improve the hemodynamic status of selected patients, allowing them to grow large enough that open heart surgery can be carried out with lower risks. In more complicated defects, such surgery may prolong the patient's life until corrective operations are developed. This report summarizes our experience with 79 palliative operations of various types used in infants two years of age or younger, and outlines the physiologic advantages and disadvantages of each procedure.

From the Departments of Surgery and Pediatrics, University of Florida College of Medicine, Gainesville.

Congenital Heart Lesions With Reduced Pulmonary Blood Flow

In congenital heart disease characterized by decreased pulmonary blood flow, the earliest palliative procedure to increase the amount of blood flowing to the lungs was introduced by Blalock and Taussig in 1945.[1] Observing that such patients grew worse clinically when their own patent ductus closed spontaneously, these investigators created an artificial ductus which increased pulmonary vascular perfusion. In this procedure, the end of the subclavian artery was anastomosed to the side of either the right or the left main pulmonary artery (fig. 1). This procedure is relatively simple and effective when the subclavian and pulmonary arteries are of sufficient size. In very small infants, however, the caliber of the vessels makes the anastomosis extremely difficult technically, and likely to thrombose. This problem prompted Potts, et al[2] to construct a side to side connection between the descending thoracic aorta and pulmonary artery (fig. 2). This procedure is feasible even in the smallest infants, provided an

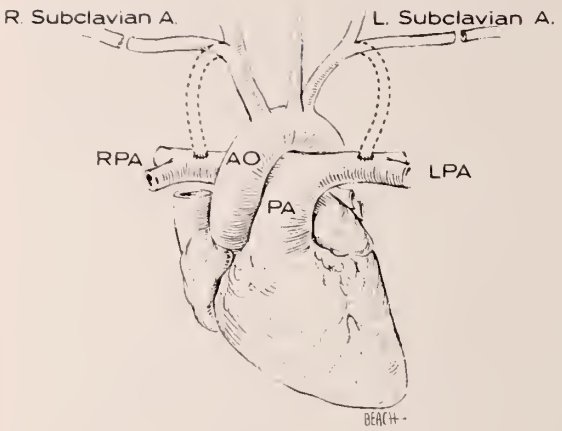


Figure 1

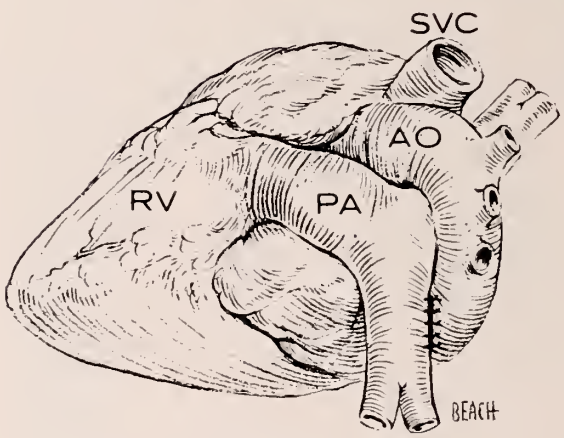


Figure 2

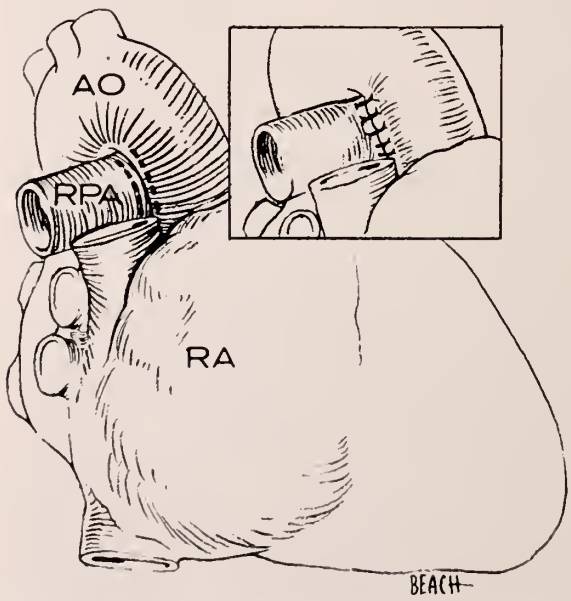


Figure 3

adequate pulmonary artery is available. Although highly effective and often lifesaving, this anastomosis presents more of a problem should total correction be attempted later using cardiopulmonary bypass, since the shunt must be surgically closed to prevent flooding the operative area within the heart during the open cardiac repair. Unlike the Blalock-Taussig anastomosis, which can be terminated by a simple ligature, the Potts anastomosis is not only less accessible, but is extremely dangerous to dissect. Most surgeons attempt a closure by the formidable procedure of suturing from within the pulmonary artery during total circulatory standstill under profound hypothermia. A similar type of anastomosis introduced by Shumacker and Mandelbaum[3] connects the ascending aorta to the right pulmonary artery (fig. 3), providing an anastomosis which is easier to close at the time of total correction.

All systemic artery-pulmonary artery anastomoses are deficient from a physiological point of view. In the first place, oxygenation is relatively inefficient, since some of the blood entering the lungs through the arterial shunt has already traversed the pulmonary circuit. Secondly, such shunts are arteriovenous fistulae, and as such place an increased strain on the left ventricle. This is particularly prone to occur in infants with the Potts or Shumacker procedure since the cross-sectional area of this anastomosis is not limited by the caliber of the vessels involved. An anastomotic length of four or five millimeters should not be exceeded or acute left ventricular failure is likely to occur. Thirdly, pulmonary hypertension may develop following a systemic–pulmonary artery anastomosis, due to the increased pressure and/or flow in the pulmonary circulation.[4-6]

To circumvent these difficulties a venous anastomosis which partially bypasses the right ventricle was popularized in this country by Glenn[7] and Sanger et al[8] (fig. 4). This operation routes the venous blood from the superior half of the body directly into the right lung. At the same time, it reduces the amount of blood flowing to the right side of the heart. This arrangement is an improvement over the arterial shunts, since venous blood is presented directly to the lungs as in a normal circulation. A second advantage is that this anastomosis provides blood to the lung at normal venous pressures, preventing any pulmonary vascular bed damage that may follow

systemic arterial shunts. A third advantage is that the superior vena cava right pulmonary artery anastomosis cannot be too large since the flow of blood occurs as a result of a small SVC-RPA pressure difference acting against a low pulmonary vascular resistance. Such a venous shunt does not produce an abnormal demand on either the right or the left side of the heart.

A venous anastomosis, however, is more likely to thrombose than an arterial shunt, especially in infants, because of the relatively low proximal driving pressure and the small caliber of the anastomosis. In the first few months of life the elevated pulmonary vascular resistance may also contribute to the thrombosis of the shunt. Moreover, if such thrombosis occurs acutely the attendant rise in the superior vena cava pressure is usually fatal, although a few successful reoperations with opening of the blocked venous anastomosis have been reported.[9] This contrasts with the systemic–pulmonary artery shunts in which thrombosis at least leaves the patient no worse off than before.

In the event that the pulmonary artery is too small for anastomosis, Barrett[10] advocated stripping away the parietal pleura in order to promote the development of bronchopulmonary collateral vessels via the chest wall. He first observed that an occasional cyanotic infant with diminished pulmonary blood flow would improve following exploratory thoracotomy alone, suggesting that such a mechanism might be operative.

Since 1959, 25 shunt procedures to increase pulmonary blood flow have been carried out at the University of Florida in infants less than two years of age (table 1) with an overall survival rate of 36% (table 2). Infants with complex anomalies in the first few months of life did poorly regardless of the type of treatment. The survival rate was higher (66%) in the older infants in whom a systemic artery pulmonary artery shunt could be performed. The highest mortality was in the group who underwent venous anastomoses. Based on this experience, we have come to favor arterial shunts in infants less than two years old, utilizing either the Blalock-Taussig procedure when the size of the subclavian arteries permits, or the Shumacker modification of the Potts operation.

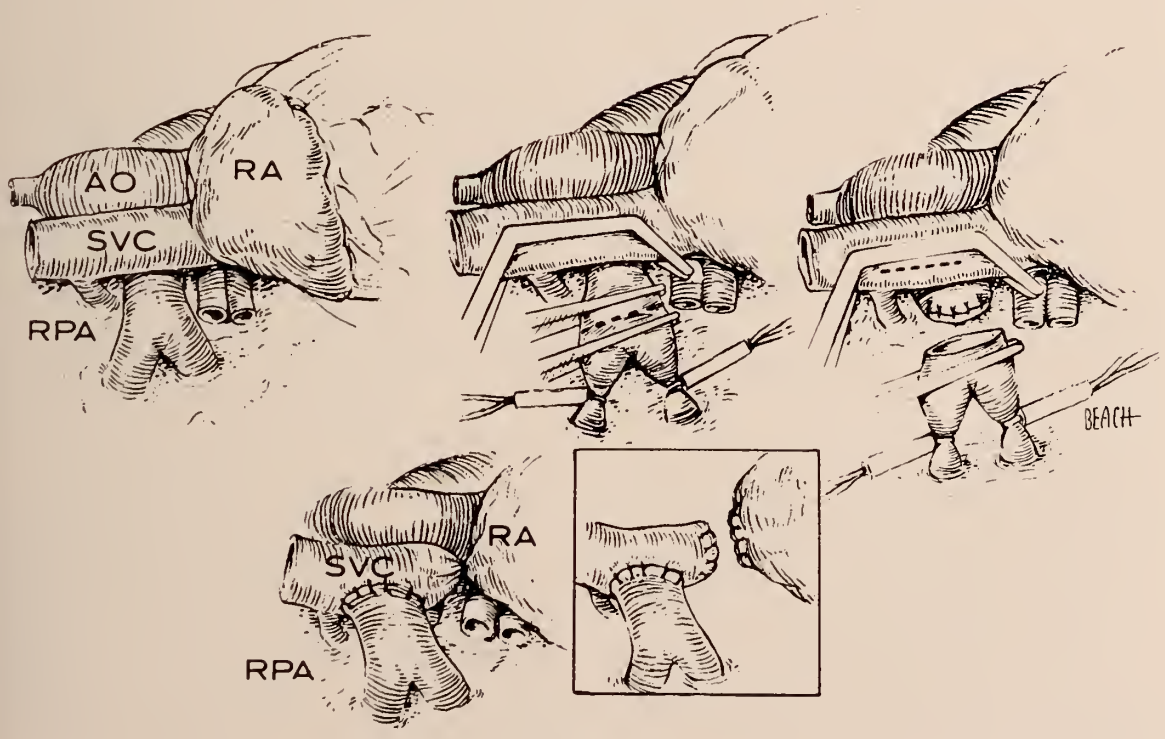


Figure 4

Table 1.—Congenital Heart Lesions Requiring Shunt Procedures

Diagnosis	Procedure		
	Subclavian-pulmonary	Aorticopulmonary	Cavopulmonary
Tetralogy of Fallot (pulmonary atresia)	5	7	3
Transposition with pulmonary stenosis			4
Single ventricle with pulmonary stenosis	1		3
Tricuspid atresia	1	1	
Total—25 patients	7	8	10

Congenital Heart Lesions With Increased Pulmonary Blood Flow

The unrelenting bombardment of the pulmonary circuit by excessive blood flow and/or abnormally high pressures has been shown to produce anatomical changes in the walls of the pulmonary arterioles which may progress to the point of irreversible pulmonary vascular bed damage.[13] In this situation, a communication between the left and the right heart acts as a decompressing vent and cannot be closed or the right ventricle will fail because of the increased resistance in the pulmonary vascular bed. This outcome was substantiated experimentally by Muller and Dammann[14] who introduced the procedure of "banding" or narrowing the pulmonary artery to protect the peripheral pulmonary arterioles in conditions where a large left to right shunt exists (fig. 5). This operation, like the previously discussed palliative procedures, is employed in the infant too ill or too small to withstand a cardiopulmonary bypass procedure, whose congestive heart failure cannot be managed by medical means alone, or in whom severe pulmonary vascular bed changes appear to be developing. Ideally performed, the procedure should diminish the pulmonary blood flow but not enough to produce a right to left shunt.

Difficulties with this operation are related to the inability in a given case to be sure of the exact degree of narrowing necessary for an ideal result, and to the fact that as the patient grows the narrowed area cannot grow proportionately. In carefully selected cases, however, the procedure has proved to be invaluable, allowing the patient to survive until he achieves a body size large enough to permit anatomic correction of the intracardiac defect.

Table 2.—Survival in Shunt Procedures

Type of Shunt	Living	Dead	% Survival
Subclavian-pulmonary	4	2	66
Aorticopulmonary	3	5	37
Cavopulmonary	2	9	18
Total	9	16	36

Table 3 outlines our experience with PA banding in 26 heart lesions with massive left to right shunts. The operation is reserved for those infants classified as medical treatment failures or in whom progressive increase in pulmonary vascular resistance is suspected. Although the overall survival rate was only 30%, it can be seen that only five of our 26 patients had pure ventricular septal defects. In these the survival rate was 40%. In the other 21 infants the excessive pulmonary blood flow was caused by more complex malformations for which banding the pulmonary arteries provided inadequate palliation. Many of our early failures were due to attempts to resect a portion of the pulmonary artery or to make the constricting band too tight. We now employ the Albert[16] modification of the original Dammann-Muller procedure, utilizing a circumferential band of Teflon or umbilical tape.

Complete Transposition of the Great Vessels

This anatomical arrangement is incompatible with life unless a communication exists between the right and left heart, since complete transposition forces the blood to flow in two closed loop circuits. In other words, pulmonary venous blood returns to the lungs without passing through the body and systemic venous blood returns to the

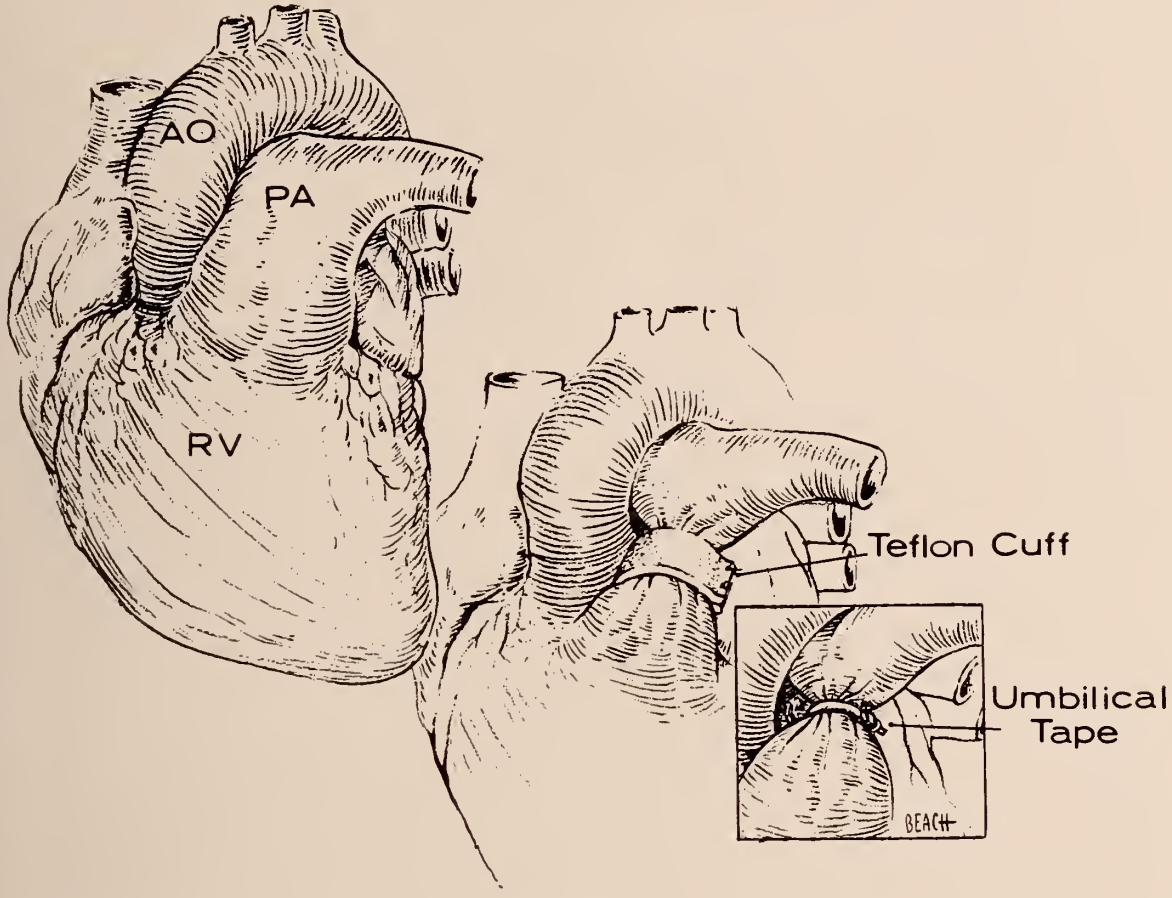


Figure 5

body without passing through the lungs. Death occurs either from inadequate communication between the two circuits, congestive heart failure, or pulmonary vascular bed changes which tend to diminish pulmonary blood flow and consequently arterial oxygen saturation. Highly effective palliation for inadequate communication between the two circuits can be achieved by the operation devised by Blalock and Hanlon[19] (fig. 6). In this procedure, the interatrial groove, including a portion of both the left and right atrium, is excluded by a vascular clamp. A large section of the interatrial septum is excised from between the jaws of the clamp. Since patients with adequate mixing of oxygenated and venous blood and associated pulmonary stenosis to protect the pulmonary vascular bed survive the longest in transposition of the great vessels, some surgeons advocate pulmonary artery banding at the time mixing is increased by the Blalock-Hanlon procedure.[20] These operations enable many children to survive to an age when further correction of the transposition anomaly by an intracardiac procedure designed to transpose the blood flow at the atrial level may be possible.[21,22]

In critically ill cyanotic infants we have experienced an overall mortality of 12% from diagnostic procedures such as catheterization and angiocardiography. For this reason, we have adopted the policy of proceeding with exploratory thoracotomy and the Blalock-Hanlon procedure in infants with transposition of the great vessels if the clinical picture is clear-cut and pediatric and surgical consultants agree on the diagnosis. With this policy our survival statistics improved from 17% to 65% (table 4). One patient was found not to have transposition on exploration. We believe that if the infant is critically ill, little will be lost if he is found to have a nonoperable complex lesion, whereas some infants will be salvaged if they can be spared the additional hazard of catheterization or angiocardiograms. Moreover, should the diagnosis be mistaken and a lesion encountered which requires a shunt pro-

Table 3.—Congenital Heart Lesions Requiring Banding of the Pulmonary Arteries

Diagnosis	Living	Dead	% Survival
Complete or partial AV canal	3	8	27
VSD	2	3	40
Single ventricle	1	3	25
Truncus arteriosus	1	2	33
Transposition of great vessels	1	2	33
Total	8	18	30

cedure, the Shumacker type of aorticopulmonary anastomosis can be easily accomplished using the same right anterolateral or posterolateral thoracotomy incision. If the clinical picture is atypical, we continue to proceed with full diagnostic studies.

Obstructive Lesions of the Right Heart

Different degrees of incomplete development of the right side of the heart can occur in different locations—such as tricuspid stenosis, tricuspid atresia, hypoplastic right ventricle, pulmonary stenosis and pulmonary atresia. In the atretic lesions survival is possible only when blood reaches the lungs by other pathways, such as bronchial arteries or a patent ductus arteriosus. In stenotic lesions the outlook depends upon the severity of the stenosis and upon whether decompression of the compromised ventricular chamber can occur, as for example in ventricular septal defect in association with pulmonary stenosis. If no such vent is present the strain upon the muscular cardiac chamber proximal to the stenotic valve may be enormous. The pressure in the right ventricle under such circumstances may be higher than the pressure in the aorta. In infants with this dangerous lesion acute right heart failure may develop unless the obstruction can be relieved. Sir Russell Brock introduced the procedure of closed pulmonary valvotomy in 1948 (fig. 7).[23] With this technique, the obstruction can be relieved in even the smallest infant if the anatomy of the obstructed area is localized enough to be amenable to blind instrumentation. Infants in right heart failure are poor candidates for general anesthesia and thoracotomy, being especially prone to refractory arrhythmias. Our experience with this lesion has been limited to five cases with two survivals. Other groups report similar figures in young infants.[24]

Discussion

The cardiac surgeon has several palliative operations from which to choose for specific physiologic deficits produced by various congenital heart lesions. Although the mortality is often high, many infants will survive until they grow large enough for open heart repair of their lesion. In our group of 79 palliative operations, 31 patients survived (39%). As can be seen from the tables, however, a considerable number of these patients were afflicted by complex anomalies, making adequate palliation more difficult and surgery more hazardous. Other groups have encountered similar high mortality in infants with complicated defects from the creation of systemic–pulmonary artery and cavopulmonary shunts during the first few months of life.[8,11,12] In the operation of pulmonary artery banding, our results confirm the

Table 4.—Comparison of Survival Data in Infants With Transposition of the Great Vessels Undergoing Blalock-Hanlon Operations With and Without Catheterization and Angiocardiography

	Number of Patients	Living	Dead	% Survival
With catheterization or angiocardiography	6	1	5	17
Without catheterization or angiocardiography	17	11	6	65
Total	23	12	11	52

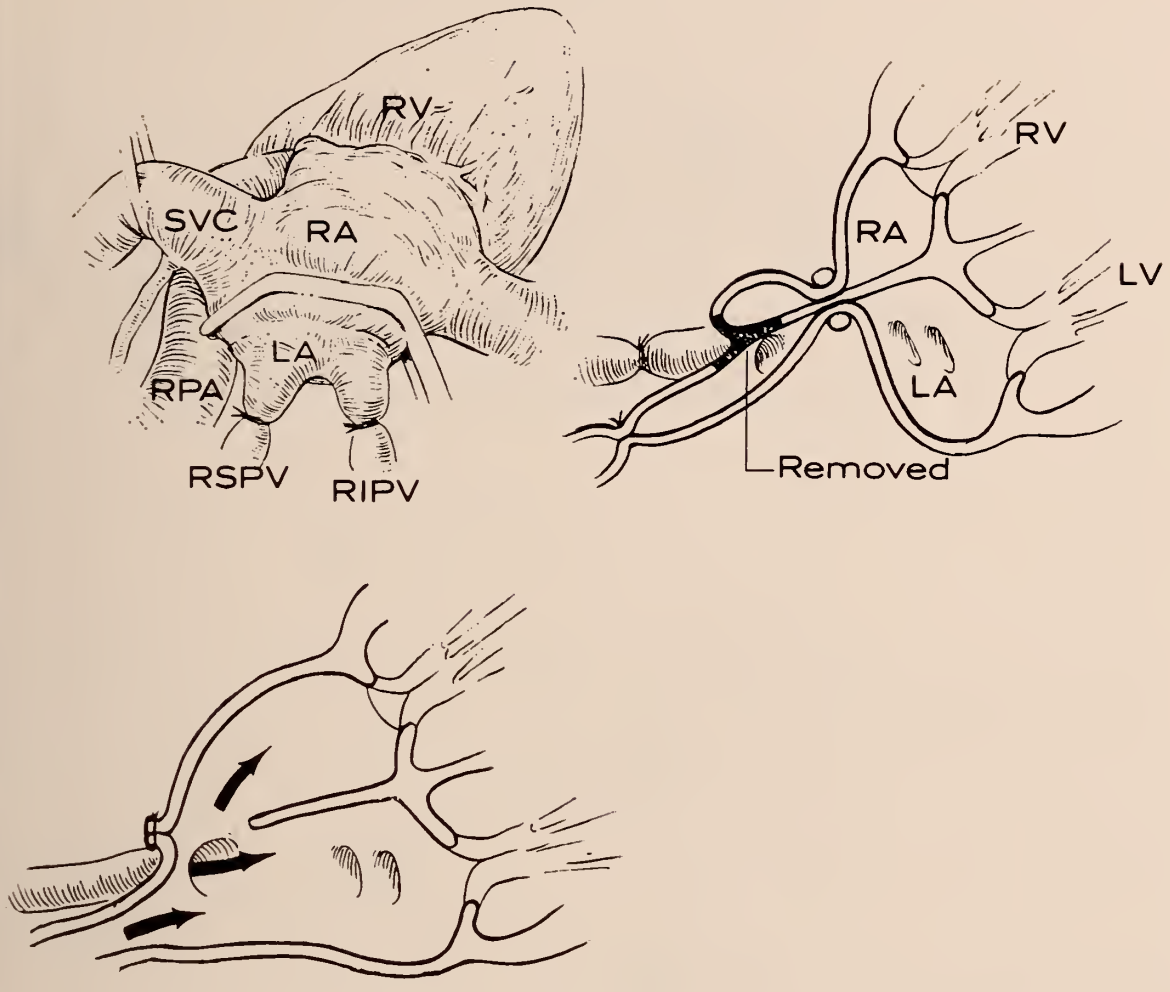


Figure 6

findings of other investigators that the mortality, even of this relatively simple surgical procedure, is high when the underlying defect is complex.

In pure ventricular septal defect with massive left to right shunt, congestive failure, and/or increasing pulmonary vascular resistance, the results of banding are more favorable. Cases are now being reported in which patients have undergone banding operation followed by successful open heart closure of their ventricular septal defects.[17,18] We acknowledge that the salvage rate among these infants is likely to be disappointing because of the severity of the basic disease, but the salvage rate can be improved by more meticulous postoperative care. We have learned through bitter early lessons that the tiny infant in heart failure or with inadequate pulmonary blood flow needs even more attention to details than the adult patient.

In recent months, we have intensified our efforts to monitor and support these infants carefully throughout the postoperative period. We believe that controlled ventilation is as important in tiny infants with congestive failure as it is in adults, not only to improve the efficacy of respiration, but also to diminish the work of respiration, thus conserving the cardiac output for more vital needs. In our hands, controlled ventilation is most easily accomplished by nasotracheal intubation using appropriate infant respirators.

A second essential feature in the postoperative care of these infants is the careful monitoring of the acid-base balance. We are now inserting a Teflon arterial cannula at the time of previous cardiac catheterization or prior to surgery in infants taken directly to surgery so that acid-base parameters can be evaluated and corrected as much as possible prior to the induction of the anesthetic.

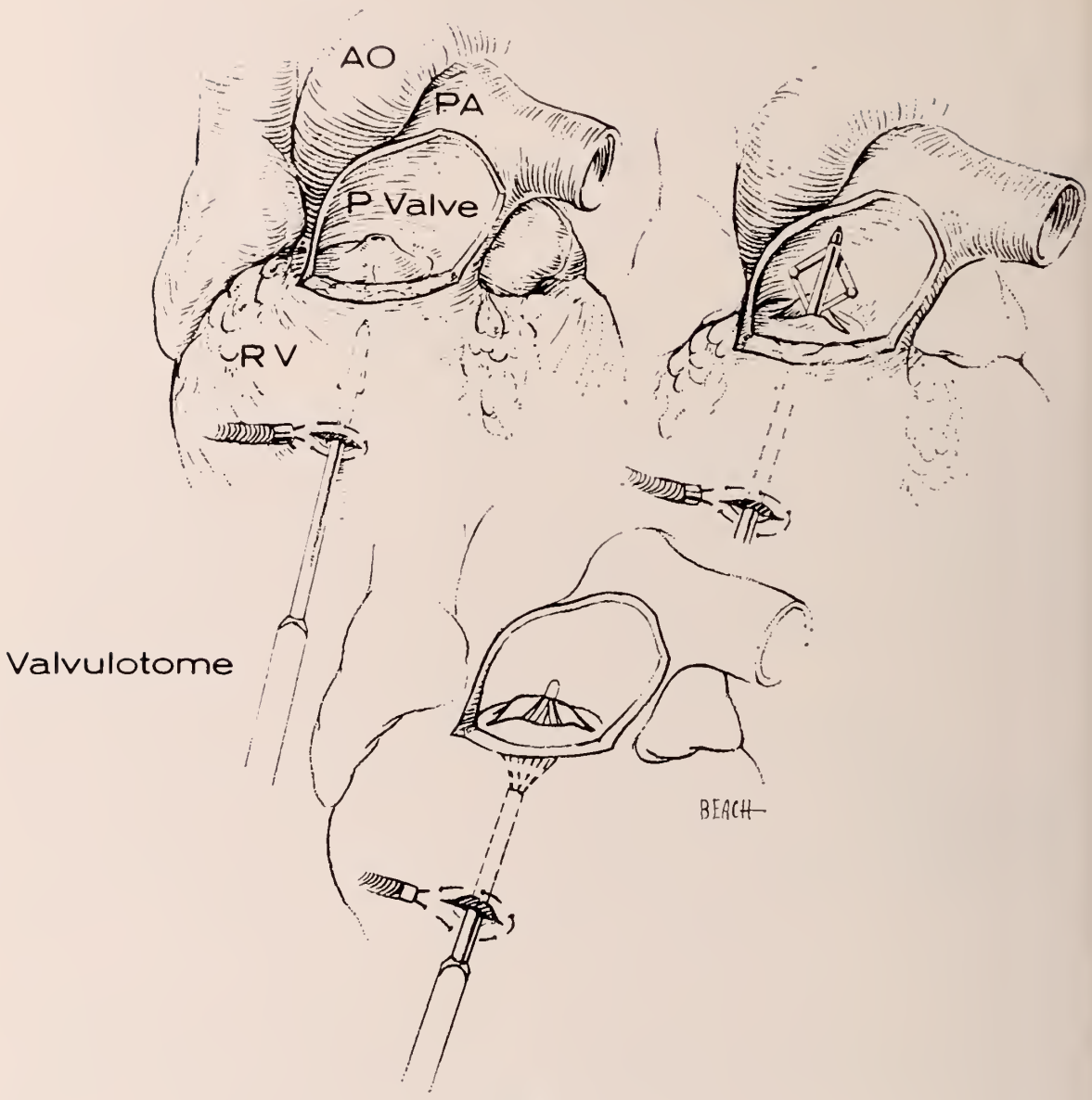


Figure 7

Summary

Several palliative surgical procedures have been devised for infants with congenital heart disease whether the basic problem is decreased pulmonary blood flow, increased pulmonary blood flow, inadequate mixing between the two sides of the heart as in complete transposition of the great vessels, or obstruction at the level of the pulmonary valve. The anatomical and physiological basis for the more useful procedures is reviewed. The rational use for such operations in critically ill infants has in the past and probably will continue in the future to salvage temporarily large numbers of otherwise hopeless infants until they achieve a suitable size so that anatomical correction can be accomplished.

References are available from the authors upon request.

▶ Dr. Wheat, College of Medicine, University of Florida, Gainesville 32601.

Resistant Monilial Vaginitis
The Male Aspect

CHARLES A. GILPIN, M.D.

We who work in a tropical climate are often faced with a serious problem in dealing with resistant monilial vaginitis. In spite of our most intensive efforts at treatment, at least 10% of these cases become chronic and recurrent.

I have encountered 100 such cases during 1964 and 1965. In all these cases, the common sources of reinfection, such as antibacterial soaps, contaminated toilet facilities, diabetes, swimming, hormone therapy, metronidazole, pregnancy, and infected douche bags, were ruled out, and still the vaginitis recurred shortly after each course of therapy.

When the patients kept careful records, and related their activities to the recurrence of the vaginitis, it became apparent that most recurrences followed intercourse when a condom had not been used.

A review of the literature revealed little information related to the male harboring Candida albicans. Marshall,[1] in his textbook of urology, discussed having discovered a case of monilia prostatitis and made the statement that the urethra and prostate gland can harbor both Trichomonas and Candida. Kistner[2] stated that in recent studies of patients with recurrent monilial infection, the urine has been found to harbor Candida in about 45% of the cases, whereas the urine of the husbands gave positive cultures in about 30% of the cases.

After 25 cases had been accumulated, the prostates of these 25 husbands were massaged and the prostatic secretions plated on Nickerson cultures. Only two of these cultures were positive for Candida.

With this much conflict between the clinical impression and the laboratory findings, I thought that the matter should be pursued further. Accordingly, the husbands were asked to collect a specimen by using a condom during intercourse. When the specimens were plated on Nickerson cultures, 23 of the 25 were positive for Candida, and the two which were negative the first time were positive when a second culture was done one week later.

What explains the conflict of culture results between specimens obtained by prostatic massage and those obtained by intercourse? Since the seminal vesicles are not emptied by prostatic massage, and since the content of the seminal vesicle is specific for fructose,[3] it seems reasonable that Candida would have a preference for the seminal vesicles, and that this site is probably where it is harbored.

Since no nontoxic oral antifungicide is presently available in this country, the question of proper treatment for the male partner presents quite a problem. Nystatin (Mycostatin) oral tablets 500,000 units, one tablet four times a day for 21 days, were tried because nothing better was available, with the understanding that this drug is not supposed to be effective systemically. It did, indeed, prove to be ineffective on these 25 patients when administered in this manner.

The 100 male partners were then asked to wear a condom during intercourse for six months. At the end of that time in 15% of them the results were negative on Nickerson culture, and have remained negative on two repeated cultures at

intervals of one month. There has been no reinfection of their partners to this date.

I would caution you to repeat the original culture at least once in the male if it is negative the first time, and if the patient has the typical history of recurrent infection following intercourse. The male should not be considered cured following the use of the condom until three consecutive negative Nickerson cultures have been received at monthly intervals.

It is of interest that in 10 of the men whose cultures were still positive after using condoms for six months, and who continued to use them for an additional six months, the cultures were still positive at the end of that time.

Summary

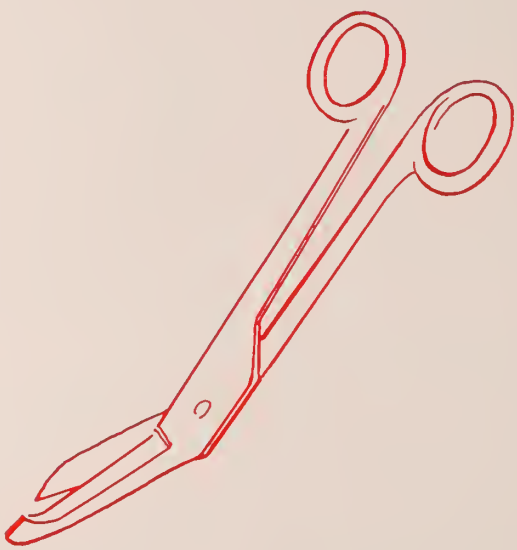
One hundred cases of resistant monilial vaginitis in the female have been investigated. Semen specimens from the mates, obtained during intercourse with a condom, have revealed Candida in all cases when plated onto Nickerson cultures.

Present methods for treatment in the male have proved wholly inadequate, so that the patient's only alternative is that of wearing a condom during intercourse, in which 15% of the males will have negative cultures in six months, or periodic retreatment of the female as she becomes reinfected.

References

1. Marshall, V. F.: Textbook of Urology, New York, Paul B. Hoeber, 1964, pp. 93, 215.
2. Kistner, Robert W.: Gynecology, Principles and Practice, Chicago, Year Book Medical Publishers, Inc., 1964, p. 87.
3. Amelar, R. D., and Hotchkiss, R. S.: Congenital Aplasia of the Epididymides and Vasa Deferentia: Effects on Semen, Fertil. & Steril. 14:44-48 (Jan.-Feb.) 1963.

▶ Dr. Gilpin, 168 S.E. First Street, Miami 33131.



Jugularography as a Diagnostic Technique in Otolaryngology

JAMES E. GAMBLE, M.D. and JAMES R. CHANDLER, M.D.

Retrograde venography of the internal jugular vein and its tributaries provides a means of obtaining a well defined radiological examination of the venous drainage of the skull and its contents. Retrograde filling ensures a much greater concentration of radiopaque material in the venous sinuses in relationship to the temporal bone as well as the torcular herophili than does delayed filling following cerebral arteriography. It therefore gives a much better outline of the transverse and sigmoid sinuses and jugular bulb, all of which are in direct anatomical relationship to the temporal bone. It is because of this that jugulography can contribute greatly to the diagnosis and evaluation of lesions in this area in certain selected patients.

Anatomy

The transverse sinus begins at the confluence of the sinuses (torcular herophili), passes laterally and anteriorly to the base of the petrous portion of the temporal bone, then curves downward and medially along the posterior border of the temporal bone in the sigmoid sulcus. In this area it is known as the sigmoid sinus. It terminates at the jugular foramen as the superior bulb of the internal jugular vein. The transverse sinuses are usually of somewhat unequal size with the right transverse sinus being equal or larger than the left in approximately 89% of all persons.[1] The distribution of blood coming from the superior sagittal and straight sinuses depends upon the configuration of the confluence.

In its course, the transverse sinus communicates with the pericranium and soft tissues of the scalp and neck by way of the condyloid and mastoid communicating veins. The superior petrosal sinus connects the sigmoid sinus to the cavernous sinus along the petrosal ridge in the superior petrosal sulcus and can also be outlined. The superior bulb of the internal jugular vein is a direct continuation of the transverse sinus in the posterior compartment of the jugular foramen and as such constitutes the beginning of the internal jugular vein. The jugular bulb lies in close proximity to the middle ear and is separated from it by only a thin layer of bone.[2] The inferior petrosal sinus empties into the internal jugular vein at the bulb and also communicates anteriorly with the cavernous sinus. This is the route which provides good filling of the cavernous sinuses by retrograde jugulography.

One can readily see that, with so much of the medial and inferior surface of the temporal bone in direct relationship to the proximal intracranial venous sinuses, lesions of this structure can be outlined by such retrograde venograms.[3]

Technique

The technique of retrograde venography which is being used was first described by Gejrot and Lindbom[4] in 1960. Essential to the method is the Seldinger technique of percutaneous catheterization which has been slightly modified to suit our needs (fig. 1).[5] In the cases herein reported,

From the Division of Otolaryngology, Department of Surgery, University of Miami School of Medicine, Jackson Memorial Hospital, Miami.
Read before the Florida Society of Ophthalmology and Otolaryngology, Hollywood, May 14, 1966.

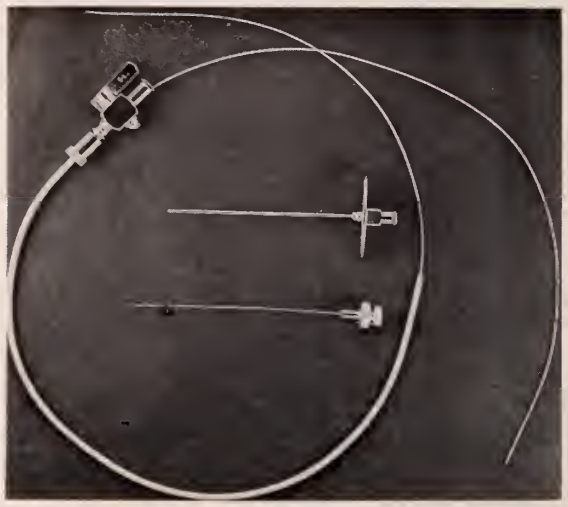


Fig. 1.—Special thin-walled needle, Seldinger guide wire and catheter.

there have been no ill effects either during or following the procedure.

The patient is given intramuscular sedation approximately 30 minutes prior to the examination. The venous flow in the internal jugular vein which is to be catheterized must be occluded. A broad compression bandage wrapped around the inferior portion of the neck and passing around and beneath the opposite axilla has been found to be most effective. The neck is sterilized and draped with sterile towels.

The vein is located by palpating the carotid artery along the anterior margin of the sternocleidomastoid muscle in the midportion of the neck. The vein is found approximately one centimeter lateral to this.

The overlying skin is infiltrated with 2% lidocaine hydrochloride. A number 11 Bard Parker blade is used to nick the skin to facilitate passage of the needle and catheter. A number 17 thin walled needle with stylet is used to puncture the vein; this is introduced into the vein with the tip angled superiorly rather than perpendicular to the skin. The stylet is removed and a flexible guide wire is introduced through the needle into the internal jugular vein. The needle is withdrawn and a rubber catheter 20 inches in length with a stopcock attached is threaded over the guide wire until the tip of the catheter reaches the dome of the jugular bulb. The guide wire is withdrawn, the catheter flushed with normal saline solution and withdrawn several millimeters. The patient is positioned on a Elema Schonander x-ray table (fig. 2). This unit has a rapid cassette changer and permits the taking of two views simultaneously. A scout film is taken using a Polaroid unit with the injection of 3 to 5 cc. of radiopaque material to check the position of the catheter. Fifty per cent Hypaque warmed to body temperature is used for the actual injection and study. Thirty-five to 40 cc. is injected within three to four seconds either with the aid of an automatic injector or with maximal manual pressure. Towne and lateral views are taken simultaneously. The first film is taken just as the injection of contrast material is completed. Four subsequent films in each position are taken at one second intervals (figs. 3 and 4).

Reported Studies

Lesions that lend themselves well to this type of study are any that are likely to impinge upon or distort the venous flow in the area of the transverse sinus, cavernous sinus, sigmoid sinus and internal jugular vein. Hamberger and Gejrot[6] reported 13 cases of glomus jugulare tumors upon which they performed jugulargrams. Of these, six demonstrated intravascular extension, four exhibited compression of the jugular bulb or sigmoid sinus by the neoplasm, and only three were normal. Gejrot[7] described three patients presenting with jugular foramen syndromes in which he was able to outline tumors by such studies. These included a sympathicoblastoma, a glomus jugulare tumor and a neurofibroma. Gejrot[8] also reported the use of jugulargraphy in the diagnosis of two

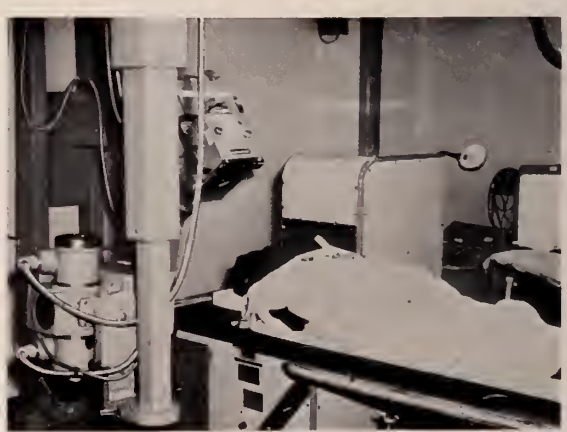


Fig. 2.—Patient in position on Elema Schonander x-ray table.

cases of anomalous upward displacement of the jugular bulb presenting just medial to the tympanic membrane in the middle ear. This procedure has also been reported as being helpful in the radiographic examination of pituitary tumors outlining the sella tursica with radiopaque material in the cavernous sinuses.[9]

One can predict increasing use for this procedure in patients with carcinoma of the middle ear and mastoid, congenital anomalies, or tumors and infections of the neck involving the base of the skull. We have had only a brief experience with it, but are optimistic about its usefulness in selected patients. Three case reports will illustrate its use. These are all cases of glomus jugulare tumors treated in Jackson Memorial Hospital.

Report of Cases

CASE 1.—A 60 year old white man had undergone a transmeatal tympanoplasty and endaural mastoidectomy for the partial removal of a left glomus jugulare tumor one year previously. Postoperative irradiation was given and stenosis of the meatus occurred. A pressure sensation and pain in the region of the operative site developed and suggested either recurrence of neoplasm or cholesteatoma formation. A jugulargram revealed a normal intracranial venous system. Widening of the meatus and revision of the cavity was performed. No tumor was encountered. His symptoms were relieved and his postoperative course has been uneventful to this date.



Fig. 4.—Normal lateral view.



Fig. 3.—Normal Towne view.



Fig. 5.—Case 3—Towne view demonstrating nonfilling of sigmoid sinus on diseased side.

Case 2.—A 50 year old white man complained of tinnitus and progressive hearing loss in his right ear of nine months duration. Examination suggested the appearance of a middle ear tumor. An exploratory tympanotomy confirmed the clinical diagnosis of a glomus jugular tumor. Routine x-rays, detailed tomograms and jugulorography of the temporal bone were completely normal. It was concluded that the tumor was confined to the middle ear space or to the immediately adjacent area. A transmeatal approach permitted complete removal of the tumor which occupied the meso- and hypotympanum.

Case 3.—A 55 year old Negro woman was found to have an extensive glomus jugulare tumor of the middle ear and mastoid when she was operated upon one year previously for chronic suppurative mastoiditis and otitis media. The tumor was subtotally removed and was not followed by irradiation therapy. For several months preceding her second admission she had experienced episodic vertigo and pain in the ear operated upon. A jugulargram attempted on the ipsilateral side was completely unsuccessful in that the internal jugular vein could not be found. The study was performed on the opposite side and revealed an aplasia or complete obstruction of the venous outflow in the area of the sigmoid sinus on the opposite side (fig. 5). It was thought that this was due to intravascular extension of the remaining neoplasm. A basal view of the skull also demonstrated a pathologic enlargement of the jugular foramen which was thought to be due to the neoplasm. With this knowledge, radiation therapy was recommended.

Summary

The anatomy of the intracranial venous sinuses in relationship to the temporal bone is reviewed. The advantages of retrograde venography are enumerated and the technique of performing this study described. Three case reports are presented which illustrate the helpful information that can be secured by this technique. It is concluded that this procedure is extremely helpful in deciding upon the operative approach, if any, to a proved glomus jugulare tumor. In addition, this procedure is advised for the more complete evaluation of other neoplasms of the base of the skull and temporal bones, congenital anomalies and malformations.

References are available from the authors upon request.

Dr. Chandler, 1700 N.W. 10th Avenue, Miami 33136.



Congenital Hyperthyroidism

VIRGILIO R. PILAPIL, M.D. and EUGENE M. FRAME, M.D.

Congenital hyperthyroidism is an uncommon disorder of the newborn which was first reported by White[1] in 1912; and up to 1960, Landucci-Rubini and Battistini[2] were able to find only 31 cases recorded in the literature. Since that time we have found nine other cases[3-9] that have been

See editorial page 355

described. In practically all of the cases reported, the mother had a history of thyrotoxicosis or was hyperthyroid at the time of delivery. In only one instance was a hyperthyroid infant delivered to a functionally hypothyroid mother.[10] It is the purpose of this paper to present another case of congenital hyperthyroidism in an infant who was followed up and to discuss the mechanism involved in the light of current knowledge.

Report of Case

A baby boy weighing 4 pounds 1 ounce was delivered on Oct. 12, 1960 to a 34 year old white mother, gravida 6 para 3 abortus 2, after approximately 29 weeks of gestation. The mother was known to have had a total right and a subtotal left thyroidectomy for hyperthyroidism four years earlier. She had been maintained since that time on sodium liothyronine because of the resulting hypothyroidism. At the time of the delivery, the mother had bilateral exophthalmos, her ankles showed myxedematous patches and she was thought to be clinically hypothyroid even though thyroid function tests were not performed and she was taking 25 mcg. of liothyronine daily.

When the patient was born, he was cyanotic and had a shallow respiration. These symptoms were improved after aspiration of mucus from the nasopharyngeal passage and administration of oxygen. Physical examination a few hours after admission to the newborn nursery revealed a very active premature infant with a strong sustained and lusty cry. He appeared slightly dusky even in the presence of oxygen and there were active movements of all extremities. The appearance of the eyes suggested exophthalmos. The heart was hyperactive and there was marked tachypnea. The liver and spleen were significantly enlarged, although exact measurements were not made. Deep-seated ecchymotic areas of the skin were also noted. The remainder of the physical examination was unremarkable.

The patient was initially placed in an isolette with high humidity and oxygen at 4 L./min. He cried loudly and almost continuously during the first 24 hours. He showed occasional sternal retractions and rapid shallow respirations of over 110/min. The heart rate was 176/min. At one time the temperature was recorded at 100.8 F. The patient was given intramuscular penicillin and streptomycin which was continued for one week. Laboratory studies were made 24 hours after admission to the nursery.

At the age of two days, the infant appeared better; good color and a decrease in sternal retractions were noted. The respiratory rate was 72/min. and the heart rate 128/min. He was still hyperactive and cried lustily. Feeding was then started; however, because of regurgitation, it was decided to insert a gastric feeding tube. Some difficulty was encountered in implementing the procedure, and barium swallow was therefore done. No definite abnormality was found.

A protein-bound iodine determination on the second day was reported as being elevated. By this time a definite bilateral exophthalmos was evident and the weight of the infant had gone down to 3 pounds 9 ounces. Because of these developments, Lugol's solution was given by mouth in a dose of two drops every eight hours. The infant then seemed quieter. About two days later a generalized skin rash was noted and iodine toxicity was suspected. The dosage of Lugol's solution was decreased to one drop every eight hours, with improvement of the rash. The ecchymoses, too, which were initially noted, had significantly disappeared by the end of one week of age.

During the following four weeks, the infant seemed to be better, but was still restless most of the time. Irritability and excessive crying continued. He was warm to touch and sweating was evident. Heart and respiratory rates were decreased. The restlessness and frequent crying were controlled to some degree by phenobarbital and dicyclomine hydrochloride. The patient also took his feedings well, but occasionally regurgitated and sometimes vomited. Changes in the feeding formula were made with no significant difference being noted.

Up to one week of age, the weight remained at 3 pounds 10 ounces after which he showed a progressive gain. The liver and spleen were decreased in size, but were still enlarged. A right reducible indirect inguinal hernia was noted when the patient was two weeks old. By the time he was discharged at the age of 33 days, he was essentially well except for some irritability, frequent crying, presence of bilateral exophthalmos and continued hepatosplenomegaly. He weighed 5 pounds 8 ounces when discharged from the hospital.

Laboratory Findings.—A Coomb's test at birth gave negative results. Serum electrolyte studies showed normal sodium, chloride and potassium. Urinalysis was normal

and no cytomegalic inclusion bodies were detected. A blood cell count revealed a white cell count of 24,389 cells cu.mm. with 10 band forms, 54 segmenters, 27 lymphocytes, eight monocytes and one eosinophil. The platelets appeared to be slightly decreased. The hemoglobin determination was over 20 Gm. with a hematocrit level of 65%. Protein-bound iodine was 22.4 ug/100 ml. A flat plate of the abdomen revealed gas in the stomach and intestine. The liver occupied more of the upper part of the abdomen than usual. A considerable portion of the left half of the abdomen was filled by a homogenous mass with no evidence of air-filled intestine. Blood sugar determination at the age of five days gave a value of 59 mg/100 ml. At 18 days of age a repeat urinalysis and a complete blood count showed essentially normal findings. Chest x-ray was normal except for some atelectasis of the left upper lobe.

Follow-up.—The patient continued to be irritable, cried much, slept poorly and tended to have loose stools during the first nine months of life. He ate well and seemed to be always hungry, but gained weight poorly. He was kept on Lugol's solution and sedatives up to the age of three months. The exophthalmos disappeared significantly by the age of 15 months. Subsequent protein-bound iodine determination at one year of age showed a normal value.

The patient was operated on for incarceration of the right inguinal hernia with hydrocele at one and a half months of age and again at four months of age for a left inguinal hernia. On both occasions routine blood cell count and urinalysis were within normal limits.

Up to the age of five years, when he was last seen, the patient remained below the third percentile in weight and height. He has been well, otherwise, and his development was thought to be essentially within the range of normal, although he was slow in learning. Subsequent psychometric evaluation showed him to be mildly retarded mentally but considered to be educable. Physical examination revealed no remarkable findings except for the small stature and somewhat keeled appearance of the head. Laboratory studies revealed normal protein-bound iodine, radioactive I^{131} uptake, glucose tolerance test, serum creatinine, serum cholesterol, blood and urine. Recent chest x-ray was normal and bone x-ray for age showed that his bone age was compatible with his chronological age of five years.

Comment

There was much disagreement on the mechanism of production of hyperthyroidism in the newborn until the demonstration of a "long-acting thyroid stimulator" (LATS) in the serum of thyrotoxic patients[11] and its causal relationship with Graves' disease.[12]

In order to understand better the problem involved, the underlying principle operative in the "pituitary-thyroid axis" will be briefly mentioned. Basically, the anterior lobe of the pituitary gland releases a thyrotropic hormone (TSH) which stimulates the thyroid gland to produce the thyroid hormone thyroxine. Thyroxine in turn affects the pituitary gland in the sense that when in excess it inhibits TSH release but when decreased it results in more TSH production by the pituitary gland. This relationship normally exists to produce a harmonious balance in the two glands.

It has long been theorized, based on clinical evidences, that TSH is probably transmitted transplacentally to the fetus along with an exophthalmos-producing substance (EPS) causing stimulation of the fetal thyroid gland and production of exophthalmos.[13-15] There is, however, a lack of laboratory evidence in human beings to support this contention. Animal experimentation in fact showed that TSH does not cross the placenta and the recent work of Yamazaki et al.[16] did not clearly establish that TSH could cross the human placenta. Neither was maternal thyroxine seriously considered as a significant causative factor in neonatal thyrotoxicosis as it would otherwise not be associated with a hyperplasia of the thyroid gland[17] which is seen in this condition. It is therefore unlikely that TSH or maternal thyroxine is the cause of congenital hyperthyroidism.

The idea of another abnormal thyroid-stimulating substance from the mother causing thyrotoxicosis in the newborn has been entertained by some.[3,6] Adams[11,12] demonstrated the presence of LATS in the serum of thyrotoxic patients and he also noted that LATS, which is actually a 7S gamma globulin and not produced by the pituitary gland, has a similar action as the TSH secreted by the anterior pituitary, thereby theorizing that both substances have the same site of action in the thyroid gland. Since it has been shown that LATS could cross the human placenta[6] and that it has a similar action on the thyroid gland as TSH,[12] it is likely that it could be the cause of newborn thyrotoxicosis. Adams et al.[3] appeared to favor this mechanism, but Mahoney et al.[8] questioned this possibility as they were unable to demonstrate the placental passage of LATS in their case. The factors, however, involved in methodology, shipping the specimen to another laboratory for examination or some other inapparent reason might explain their negative result.

It has been noted that the duration of thyrotoxicosis of up to about three months is compatible with the 20 to 30 days half-life of maternal antibodies and gamma globulin in general[3] which further favors the former assumption. The recent report of Sunshine et al.[9] demonstrating the transplacental transfer of LATS in their case has placed this assumption on firmer ground.

With regard to the exophthalmic manifestation, it is probably due to an exophthalmos-producing substance which has been demonstrated in

the serum of some patients suffering from severe or progressive exophthalmos.[18] This substance is probably not the same as LATS[7] since it has been observed that exophthalmos disappears much later than the symptoms of hyperthyroidism as could be seen in the present case. The fact that an infant with exophthalmos but without symptoms of hyperthyroidism was born to a mother with exophthalmos developing after thyroidectomy for hyperthyroidism[19] lends credence to this idea. It should also be pointed out that since TSH has not been shown to cross the placenta, that EPS has been demonstrated in the serum of patients with exophthalmos and that its effect has been seen in cases of newborns with hyperthyroidism born to both hypothyroid and hyperthyroid mothers, it can then be postulated that EPS is not the same as TSH and that it probably passes the placental barrier along with LATS, although we were unable to find any previous study to support this assumption.

In the present case the manifestations are typical of the cases of hyperthyroidism in the newborn previously reported. They differ mainly, together with those of Koerner's case,[10] in that the mother was hypothyroid during pregnancy and when delivery of the fetus occurred. It is likely that maternal LATS had crossed the placenta along with the EPS causing stimulation of the fetal thyroid gland and production of exophthalmos. Maternal thyroxine could not have affected the infant since the mother was hypothyroid and despite a likely elevated LATS in her serum, it was unable to stimulate production of thyroxine in her because of the surgical removal of the site of action.

The duration of signs and symptoms in this case is prolonged when compared to that of the other reported cases where regression of the manifestations occurred in about one to five months.[2] The pattern of regression of symptoms, however, in which the general and cardiovascular manifestations improved ahead of the exophthalmos[2] is about the same. Sunshine et al.[9] estimated the half-life of LATS to be six days with an activity of up to about 21 days which could be in keeping with the duration of symptoms in their patient. The apparent longer duration of symptoms in our patient, however, the end-point of which could not be definitely established, makes one speculate that there might be either a greater amount of LATS transplacentally transferred to the fetus or that there is a longer LATS half-life and activity.

The deep-seated ecchymotic areas observed shortly after birth and disappearing significantly by one week of age were associated with an apparent decrease in platelets on laboratory examination. This may be indicative of a certain degree of thrombocytopenia as was observed in the case of Mahoney et al.[8] Whether it was related to the prematurity, the splenomegaly, an undetected viral infection, trauma or the toxic effect of the agents involved in the hyperthyroid state could not be determined.

A flat plate of the abdomen revealed evidence of a homogenous mass occupying most of the left side with the liver on the right occupying more of the upper portion of the abdomen than usual. It was the opinion of the radiologist that it might represent either hepatosplenomegaly or fluid in the peritoneal cavity. At any rate, it would suggest congestive failure which has frequently been seen in the other reported cases.

The eventual development of inguinal hernias in our patient may be of the same significance as the other malformations seen in children of hyperthyroid mothers,[2] although it could have been present as in a normal population.

It is of interest that this child has shown evidence of growth and mental retardation when last seen at the age of five years. There has been no mention of this before and the longest follow-up that we were able to find was on a boy who was followed up to the age of three years and apparently nothing unusual was found.[15] It is likely that the growth failure here is on the basis of prematurity. The possibility, however, of a long term influence of the original hyperthyroid state cannot be definitely ruled out. The mental retardation may be on the basis of the hyperthyroidism of the fetus and/or its prematurity.

Studies made by Yankova[20] on children born to mothers with untreated thyrotoxicosis revealed that over 40% of the children had different degrees of retarded mental development while the remainder had increased excitability and other central nervous system disturbances as well as various endocrine derangements. Myant,[21] basing his observation on some evidences that the thyroid hormone crosses the placenta in human beings as early as the sixteenth week of pregnancy, theorized it is possible that in the presence of an overactive maternal thyroid gland, toxic amounts of thyroid

hormone will reach the fetal tissues at a critical stage in the development of the nervous system and the endocrine glands, explaining why nearly half of the children have such disturbances. This can certainly be true in the case described, but it would not explain a case in which the mother is hypothyroid.

In the present report, it is unlikely that an excess of maternal thyroxine crossed the placenta, as the mother was hypothyroid throughout pregnancy and was being given sodium liothyronine. It is possible, however, that the low maternal thyroxine level caused a stimulation in LATS production with resulting high level of LATS in her serum; this would then pass to the fetus through the placenta and cause stimulation of the fetal thyroid to produce thyroxine. It could thus be surmised that the toxic amount of thyroxine which acted on the nervous system, if ever this assumption is true, is of fetal origin following stimulation of the fetal thyroid by maternal LATS.

The implication of this change in thinking about the cause of neonatal thyrotoxicosis would reflect greatly on the approach to its treatment. Considering the risk involved in a severe neonatal thyrotoxicosis and the possibility of its late effects, a change or other rational efforts in its management may thus be justified. Sunshine et al.[9] in addition to the usual treatment, suggested an exchange transfusion as in erythroblastosis fetalis or poisoning to clear the infant's blood of circulating LATS. This would, of course, similarly affect any circulating EPS. They also suggested giving corticosteroid to the mother with known high levels of serum LATS during the last phase of pregnancy with the idea of lowering the serum LATS. The likelihood of a beneficial effect from corticosteroids being given to the infant in addition to the usual drugs might be another consideration. This approach seems reasonable on the basis of the presumptive role of LATS in the causation of neonatal thyrotoxicosis and only the later experience of others could prove or disprove its merits.

Summary

A premature newborn with congenital hyperthyroidism manifested by restlessness, irritability, exophthalmos and poor gain in weight is described. A follow-up of the patient to the age of five years revealed some retardation in growth and mental development. The role of the long-acting thyroid stimulator as the possible cause of the condition is discussed along with the manifestations, probable late effects and changing view on the management.

Acknowledgement is made to Dr. Dell Lebo, Chief Clinical Psychologist of the Child Guidance Clinic of Duval County, Jacksonville, for the psychological examination of the patient; Dr. Leo Wachtel for his aid with some clinical information on the patient and mother; and Mrs. Dorothy Scott for secretarial assistance.

References are available from the authors upon request.

Dr. Frame, 2706 St. Johns Avenue, Jacksonville 32205.

Eosinophilic Granuloma Of the Lung With Mediastinal Emphysema

WILLIAM L. BAIRD JR., M.D. and JAMES D. MORAN, M.D.

Pneumothorax, diabetes insipidus and pulmonary insufficiency are known to occur with eosinophilic granuloma of the lung.[1] A case is presented in which mediastinal emphysema was an unusual complication.

Report of Case

An 18 year old white man was admitted to Manatee Memorial Hospital in July 1964 with polyuria and polydipsia. Studies for diabetes insipidus were not diagnostic. A chest x-ray was not obtained. He was discharged without a diagnosis.

The symptoms persisted until April 1965, when mild exertional dyspnea and hemoptysis developed. In May 1965 he had a spontaneous pneumothorax. Chest x-ray showed changes compatible with eosinophilic granuloma of the lung (fig. 1). He had a urine volume above 6,000 cc. a day with a specific gravity below 1.006. The urine did not respond to dehydration in spite of a rise in the serum sodium. The specific gravity rose to above 1.010 and the urine volume fell to below 3,000 cc. with pitressin tannate in oil. The skull x-ray was normal. There was no eosinophilia. A lung biopsy revealed granulomatous and inflammatory changes in the parenchyma, with infiltrates of eosinophils and epithelioid cellular elements.

Over the next three months he had one pneumothorax on the right and one on the left, each requiring closed chest drainage. There was a progression in the cystic changes in the lungs (fig. 2). In September 1965 he had a bilateral tension pneumothorax which required emergency treatment. Oral steroid therapy was instituted. With bilateral chest tubes in place, the lungs could not be permanently expanded. Talc poudrage was performed on the right side of the chest. The postoperative course was satisfactory for several hours until respiratory distress

From the Departments of Medicine and Radiology, Manatee Memorial Hospital, Bradenton.



Fig. 1.—(5-30-65) Admission chest film showing pneumothorax on right with typical "honeycombing" of right lung and minimal changes in base of left lung.

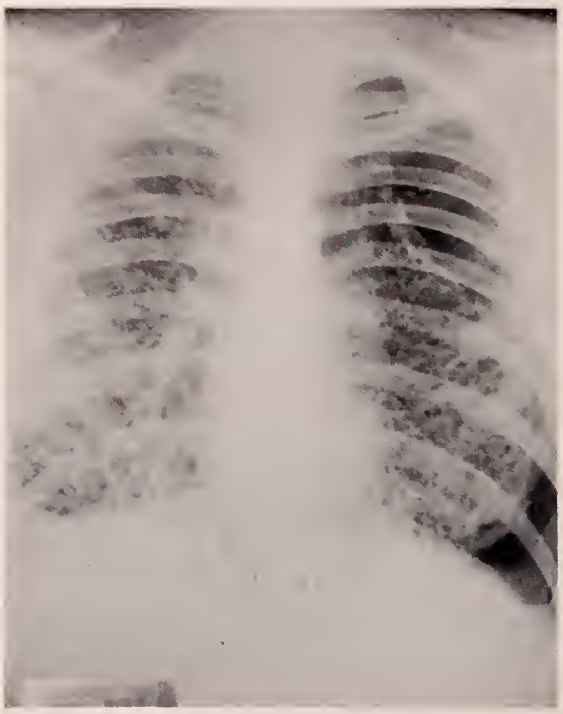


Fig. 2.—(9-7-65) Patient readmitted with pneumothorax on left. Note rapid progression of disease on left and development of cystic "honeycombing."



Fig. 3.—(10-13-65) Bilateral pneumothorax, pneumomediastinum and subcutaneous emphysema.

developed. A tremendous mediastinal and subcutaneous emphysema then developed which extended even to the wrists (fig. 3), and he expired on the night of the operation.

Comment

Eosinophilic granuloma of the lung is a diffuse granulomatous process with the microscopic characteristics of the Hand-Schüller-Christian disease spectrum. The x-ray features may vary from a fine peribronchiolar infiltrate in a latticework pattern to a picture of cystic spaces described as a "honeycomb" lung.[2] In the cystic phase, blebs cover the pleural surface, and recurrent spontaneous pneumothorax is common.

Steroids have been used, but their place in therapy has yet to be determined.[3] This patient received steroids during the fourteenth month of his illness, without apparent benefit. Talc poudrage has been used successfully to minimize the respiratory embarrassment from the recurrent pneumothorax.[4] When it became obvious that the patient was incapacitated because of recurrent pneumothorax, talc poudrage was attempted. The mediastinal emphysema appeared to be precipitated by the operation or anesthesia. Lewis[1] reviewed 75 cases of eosinophilic granuloma of the lung and did not report this complication. With extensive cyst formation such as that seen in this case, recurrent pneumothorax would be expected. Perhaps in such cases talc poudrage should be performed at the time of the original biopsy.

Summary

Three serious complications have been listed in eosinophilic granuloma of the lung: pneumothorax, diabetes insipidus and pulmonary fibrosis with cor pulmonale. A case of eosinophilic granuloma of the lung with recurrent pneumothorax and diabetes insipidus is reported which adds a fourth serious complication — mediastinal emphysema. This complication occurred after talc poudrage, and the patient died.

References

1. Lewis, J. G.: Eosinophilic Granuloma and Its Variants With Special Reference to Lung Involvement, A Report of 12 Patients, Quart. J. Med. 33:337-359 (July) 1964.
2. Thompson, J. R., and Langer, S.: Eosinophilic Granuloma of the Lung, Roentgenologic and Pathologic Features, Dis. Chest 46:553-561 (Nov.) 1964.
3. Burford, F. J.: Pulmonary Histiocytosis X Clearing on Steroid Therapy, J. Florida M. A. 52: 639-640 (Sept.) 1965.
4. Roland, A. S.; Merdinger, W. F., and Froeb, H. F.: Recurrent Spontaneous Pneumothorax, a Clue to the Diagnosis of Histiocytosis X, New England J. Med. 270: 73-77 (Jan. 9) 1964.

Dr. Baird, Manatee Memorial Hospital, Bradenton 33505.

Philosophy and Pathogenesis of One Practitioner's Treatment of Alcoholics and Alcoholism

THOMAS M. QUEHL, M.D.

My name is Tom Quehl. I am a doctor of medicine, a physician. I am not an alcoholic. I treat alcoholics. I am not here to explain to you how Alcoholics Anonymous works. I use AA in treating alcoholics. I am here to discuss what medicine can do to help the individual alcoholic.

How many talks, hundreds or more, have I started with this phraseology. Somewhere I think I should add that I appear to discuss what medicine can do if the individual alcoholic can find a doctor who will accept alcoholic patients. How many times saying this as if by rote do I wonder why so many doctors do not choose to treat alcoholism, do not try to understand alcoholics, do not even recognize AA. Possibly I could help alcoholics, alcoholism and AA more if I take my information to my compatriots in medicine. Organized medicine accepts a definition of alcoholism as a disease; this definition must remain general to avoid any open disagreement.

AA members further define alcoholism as an insidious disease that grows progressively worse whether one is drinking, drunk or sober.

Most people cannot understand alcoholics or alcoholism. This is true of many if not all doctors. Even the alcoholic doctor who has controlled or arrested his disease must admit he cannot understand alcoholics or alcoholism in spite of his success. He may be more empathetic toward the alcoholic and sympathetic to the disease of alcoholism; however, he cannot explain the pathogenesis of the disease or the cause and effect of the cure or the illness itself.

Many times those who treat alcoholics show concern that not enough doctors agree to treat alcoholics. Most frequently quoted reasons for the individual doctor's avoidance or acceptance of alcoholic patients include: (1) the high risk of failure, (2) the doctor's own feeling of inadequacy in undertaking such treatment, (3) ingrained or learned attitudes of hatred or repugnance for the "drunk." These are assertedly alibis. Most if not all doctors feel guilt of some sort at turning away any patient he cannot or will not handle. It may well be better for the alcoholic that many doctors refuse to accept such patients. At least such an arrangement prevents the physician from consciously or unconsciously hurting or punishing this "drunk."

I cannot cure alcoholism. I can help alcoholics. My entire approach to treating alcoholics is rooted in, surrounded by and an extension of AA as I comprehend it. Believe me, I do not understand how or why AA works any better or more completely than any member of AA. The few people I permit to waste my time are those who tell me why AA works or fails. Usually misguided WCTU or religious fanatics know why it works and drunks who are rationalizing, why it fails.

In the program toward success in attainment of sobriety an alcoholic who enters AA takes a series of steps toward rehabilitation. I prefer to call this habilitation, for I think many of these persons either have no previous adult, mature, sober period to return to or really never became a complete adult, although functioning as a competent adult before incapacitation by this illness. The first step in AA dictates a personal confession of identification that this person is an alcoholic.

Many times shaky persons in withdrawal come to the physician looking for help. Just as physicians often employ hypnosis to overcome a conscious block, the physician's primary effort with the alcoholic may well be to say simply, "You are an alcoholic." If the person seeking help accepts this information at this level of consciousness and will continue to play it back with external repetition like a posthypnotic positive suggestion, he has already taken the first necessary step.

If the physician will accept the fact that (re)habilitation starts as early in any disease as possible, then he can make AA work for him and with him to help this alcoholic patient, just as he would start physiotherapy early in the treatment of a paralytic stroke. Identification of AA as an ancillary and intimate partner in treatment of alcoholism permits you to lead your patient in the right direction. First you want to assist your patient in overcoming the acute phase of his illness. At the same time you hope to build in positive blocks to offset the possibility of subsequent relapse immediately or at delays of three, six, nine or more years.

In almost any other illness you as a physician use prophylaxis or prevention if possible, treatment when indicated and inoculation if available to protect against any diseases. Each of us realizes that repeated exposure is essential to maintain natural resistance or immunity to a naturally occurring infectious disease. Each of us recommends and gives booster shots to continue immunity in any active immunization series. In alcoholism you are treating a disease which may become arrested or controlled, but neither you nor your patient can cure it. If you will stress the need for the alcoholic to follow all the steps of AA to maintain the arrest of his disease, you will quickly jump to Step 12 of the AA program which directs the alcoholic to spread the faith, so to speak, and work amongst those who need the help he or she got originally. This repeated exposure to the ravages of the disease, coupled with the re-enforced and oft repeated advice that his disease is getting worse even though arrested, acts as the repeated vaccination, exposure or inoculation required to maintain any immunity and increase the likelihood of an excellent threshold against any possible relapse.

Most self-styled and many accepted experts in the field of treatment of alcoholics repeatedly refer to their hundreds or thousands of successes in such treatment and infer or actually state how many other doctors failed to help these persons. Most mention incompetence or ineptness or lack of understanding of the alcoholic problem. These experts are always quick to point out that the alcoholic under treatment eventually cured, controlled or helped elsewhere returns to haunt the physician who failed. Many times the highly trained specialist advises against the family doctor attempting to treat alcoholism. Frequently mentioned in such discouraging advice is the individual doctor's difficulty in adjusting to the monotony of the long range problem and the stigma that nonalcoholic persons will not attend the physician who treats drunks. Many times I have heard, "You are playing with fire with this patient and you probably will not succeed. This person will haunt you forever letting you know how you failed." How can anyone return except in gratitude if you were correct, frank and explicit in your initial contact? If you choose to accept this patient and advise him of his disease, he may become angry at you immediately, or he may accept and get the help you can give him medically and AA can give him personally. Nevertheless, even if you are not the man to help this one person, the next doctor may do so if only because of your failure. If and when this patient ever returns to you, it will be to thank you and agree that he might well have done better had he followed your advice earlier. Those doctors who successfully treat so many alcoholic patients might never have succeeded with the first had someone else not failed previously. Furthermore, these same experts are failing with some patients now and their failures may well become your successes.

Alcoholics Anonymous may owe some of its success to the fact that the 12 steps of AA are, in effect, only the restatement of our negatively oriented Ten Commandments to a positive direction of "you will, you can, you shall or you must" direction that the alcoholic can accept. AA may in fact provide the confessional needed by so many to express failure in such an achievement-oriented society as ours.

A major problem in treating alcoholics exists with the hospitals which refuse general practitioners permission to admit such patients as attending physician or without a psychiatric consultant. Even when the family doctor acquiesces to this restriction, the hospital usually wants most if not all of the anticipated and/or com-

puted fee for services in advance prior to admission. Hospitalization, therefore, is usually out for the average alcoholic on the mend. Such obstacles obviously hinder any professional effort and give the alcoholic adequate reason to rejoin his drinking cronies.

Insurers are another major problem with alcoholics and their treatment. I sincerely believe any sensible company shopping for insurance could insist on adequate coverage for alcoholism for their employees as well as coverage for any other bonafide disease; however, the insurer certainly would not suggest such if the employer forgets, overlooks or is unaware of the need for such coverage. I have never admitted any alcoholic to any hospital under any false or supposedly concomitant diagnosis. Consequently, many companies have refused to cover such hospital care for my patients. Seldom have I ever lost a patient because of this development. To the contrary, some patients I have known have taken their alcoholic problems to other practitioners to be admitted for care and/or "cure" under the pseudo diagnosis of gallbladder attack, gastroenteritis, malnutrition, dehydration or even acute and/or chronic anxiety, when covered, and so on ad nauseum. Sooner or later most of these patients, if not all, return to me with similar or new complaints and offer the information to me that he or she cannot, or will not, trust his or her life or health to any physician who would lie about a diagnosis just to satisfy the insurance company.

Regardless of why or how Alcoholics Anonymous helps your patient, if you will direct your alcoholic patient to AA and then undertake to counsel, support and treat this patient medically, you may be amazed at how many you can help. You will eventually see some of your earlier failures back to ask you to try again or thank you for at least suggesting the proper direction.

Brief Outline of Treatment

(1) Consider all intercurrent health problems and institute or restart specific therapy and control.

(2) Try to treat as an outpatient and home situation with the help of Alcoholics Anonymous working as an integral part of the treatment.

(3) Paraldehyde I.M. 4 to 5 cc. deep every four to 12 hours depending upon need—never by mouth, or at least never in the possession of the patient.

(4) Promazine hydrochloride (Sparine), hydroxyzine hydrochloride (Atarax) and chlorpromazine (Thorazine) have proved useful. Because of the possible hypotensive reaction of promazine hydrochloride and the hepatic and other problems associated with chlorpromazine, I routinely use hydroxyzine hydrochloride, as much as 100 to 150 mg. at first, repeated at anywhere from one to four hour intervals as needed.

(5) Chlordiazepoxide hydrochloride (Librium) or diazepam (Valium) orally in whatever dosage indicated, Stuart Amino Acids and B_{12} tablets, two tablets three times a day with meals and chloral hydrate (Noctec) or ethchlorvynol (Placidyl) for sleep with occasionally the addition of diphenhydramine hydrochloride (Benadryl) 100 mg. and/or diphenylhydantoin (Dilantin) 100 to 200 mg. with the h.s. sedation.

(6) I specifically avoid glutethimide (Doriden) because many of my patients are already combining glutethimide and alcohol for their "kicks." Paraldehyde orally is difficult to control because many alcoholics drying out will switch to paraldehyde in excess quantities in place of the alcohol and problems will develop peculiar to paraldehyde ingestion including dehydration, electrolyte imbalance and pneumonitis.

(7) Supportive psychotherapy, including directional and nondirectional philosophies, and a B_{12} and Crude Liver injection with either Intravite-C or Vicam combination with inositol and Methischol with or without the addition of ACTH, depending upon the degree of stress and strain.

(8) I stress the need to give 2 cc. of Crude Liver daily at least for the first seven to 10 days of acute alcoholic withdrawal.

(9) I have used disulfiram (Antabuse) on two or three occasions but only then when forced to; possibly my negative feelings have influenced my high rate of failure with this drug. I believe it is much like painting nails with a noxious agent to prevent thumb sucking or nail biting; the patient will only redirect his efforts to some more obnoxious or deadly outlet for his anxieties and frustrations.

Dr. Quehl, 4210 Central Avenue, St. Petersburg 33711.



following infection

B and C vitamins are therapy: STRESSCAPS B and C vitamins in thera peutic amounts...help the body mobilize defenses during convalescence...aic response to primary therapy. The patient with a severe infection, and many others undergoing physiologic stress, may benefit from STRESSCAPS capsules



Stresscaps®

Stress Formula Vitamins Lederle

FOR PROFESSIONAL RECOMMENDATION ONLY

Each capsule contains:

Vitamin B_1 (as Thiamine Mononitrate)	10 mg
Vitamin B_2 (Riboflavin)	10 mg
Vitamin B_6 (Pyridoxine HCl)	2 mg
Vitamin B_{12} Crystalline	4 mcgm
Vitamin C (Ascorbic Acid)	300 mg
Niacinamide	100 mg
Calcium Pantothenate	20 mg

Recommended intake: Adults, 1 capsule daily, for the treatment of vitamin deficiencies. Supplied in decorative "reminder" jars of 30 and 100; bottles of 500.

LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York

Lederle

626-6—3612



President's Page

That the Past, Present and Future Be Preserved

Recently I was asked to be a member of a statewide committee to sponsor and stimulate interest in National Library Week, which occurs during the month of April.

Libraries have played an enormously important role in the history of man, being depositories and preservers of the written words and pictures about man, his epochs, civilizations, cultures and accomplishments down through the thousands of years since events and impressions were first recorded on walls, floors, ceilings, hides, scrolls, parchment and paper.

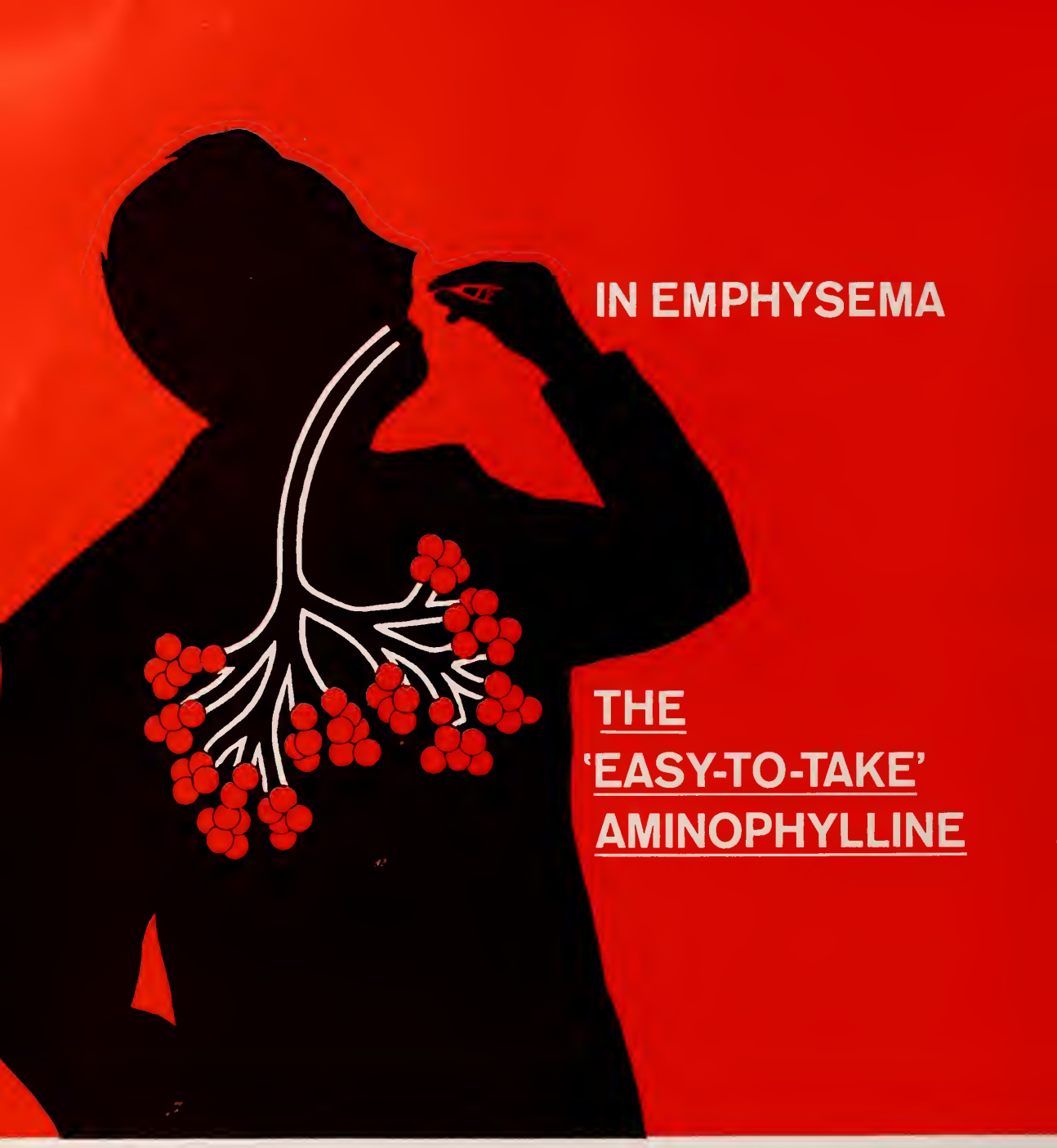
Words uttered in conversation and not recorded are soon forgotten. Words put down on paper and preserved in books or by other methods such as tapes, recordings and discs are available forever and can be read and heard through posterity.

By means of libraries one can relive, enjoy and experience history, travel all over the world, enjoy adventure, romance and learn anything that he has the desire and will to learn. By use of libraries, one can enrich his life in a way that no other source of knowledge can provide.

We physicians are ardent readers by training and by necessity. We know the importance of good libraries in adding to our knowledge, our experience and our capabilities. A complete person has to be a good reader.

Let us always support in every way the maintenance of first class, quality libraries throughout our state for the continuous benefit of all of our citizens and for our future citizens—our children. A fine library is a wondrous heritage.

George S. Palmer



IN EMPHYSEMA

THE 'EASY-TO-TAKE' AMINOPHYLLINE

Aminophylline dura-tabs®

prolonged-medication tablets 4½ gr. (0.3 Gm.)

Precautions: Use with caution in patients with poor renal function as a decreased rate of excretion may lead to accumulation and untoward reactions. Gastric irritation may occasionally be observed in certain patients sensitive to oral aminophylline.

Dosage: Adults, 1 to 2 Aminophylline Dura-Tabs each 8 or 12 hours, with food.

RARELY UPSET THE STOMACH

Oral aminophylline needn't disturb the stomach—nor a good night's sleep. Patients breathe easier all day, sleep better all night, as each Aminophylline Dura-Tab dose provides effective therapeutic activity for up to 12 hours. And unlike conventional tablets, AMINOPHYLLINE DURA-TABS seldom cause gastric distress. The special Dura-Tab process allows the gradual absorption of the medication from the intestinal tract with only a small fraction of the dose released in the stomach.

WYNN Pharmaceuticals, Inc., Phila., Pa. 19132 • Manufacturers of QUINAGLUTE® DURA-TABS®
(Quinidine Gluconate 5 gr.)



Neonatal Hyperthyroidism

Hyperthyroidism in infants is uncommon. The clinical course is usually stormy, but transient, and is manifest by a variety of signs and symptoms. These include irritability, flushing, vomiting, jaundice, fever, tachypnea, tachycardia, thyroidal enlargement, exophthalmus and hepatomegaly. There is generally a voracious appetite with poor gain in weight. Characteristically, the protein bound iodine is markedly increased.

See article page 343

The maternal-fetal relationship is most significant. Mothers of these infants have primarily a history of hyperthyroidism. The evidence is convincing that neonatal thyrotoxicosis is the result of transplacental passage of some maternal factor. The isolation of long-acting thyroid stimulator (LATS), a 7S gamma$_2$-globulin, from thyrotoxic infants and their mothers suggests that it is the cause of the transient neonatal illness. The severity and duration of the disease seem to be related to the LATS degradation in the infant.

The primary therapeutic goal in congenital hyperthyroidism is the suppression of excessive thyroid function. This may be accomplished with antithyroid drugs, such as the iodides or propylthiouracil. Other measures include sedatives, oxygen, adequate fluids and calories, supportive use of digitalis, and sometimes reserpine or the corticosteroids. Since LATS is probably an immune globulin, it has been suggested that the treatment of pregnant hyperthyroid mothers with corticosteroids might lessen the likelihood of neonatal thyrotoxicosis. While prevention is desirable, there are possible fetal side effects from maternal corticosteroid therapy which should necessitate caution. Removal of circulating LATS by exchange transfusion is a therapeutic possibility if the infant's clinical condition is severe and associated with a high titer.

Since little is known concerning the overall growth and mental development of these children, long term follow-up is essential. The report elsewhere in this issue of the Journal suggests that associated growth and mental retardation may be the result of an overactive effect of a thyroid substance at a critical time of organ development.

This is a subject which, in many aspects, is shrouded in mystery. The authors of the article may be congratulated for their well presented scholarly approach, which is fully documented on the basis of present knowledge of neonatal hyperthyroidism.

It is probable that mild cases of the disease occur. These may be recognized and adequately treated only with the help of a good maternal history and thorough infant evaluation. Alert clinical acumen is therefore necessary.

Warren W. Quillian II, M.D.
Coral Gables





Posed by professional model.

You can't set her free. But you can help her feel less anxious.

You know this woman.

She's anxious, tense, irritable. She's felt this way for months.

Beset by the seemingly insurmountable problems of raising a young family, and confined to the home most of the time, her symptoms reflect a sense of inadequacy and isolation. Your reassurance and guidance may have helped some, but not enough.

SERAX (oxazepam) cannot change her environment, of course. But it can help relieve anxiety, tension, agitation and irritability, thus strengthening her ability to cope with day-to-day problems. Eventually—as she regains confidence and composure—your counsel may be all the support she needs.

Indicated in anxiety, tension, agitation, irritability, and anxiety associated with depression.

May be used in a broad range of patients, generally with considerable dosage flexibility.

Contraindications: History of previous hypersensitivity to oxazepam. Oxazepam is not indicated in psychoses.

Precautions: Hypotensive reactions are rare, but use with caution where complications could ensue from a fall in blood pressure, especially in the elderly. One patient exhibiting drug dependency by taking a chronic overdose developed upon cessation questionable withdrawal symptoms. Carefully supervise dose and amounts prescribed, especially for patients prone to overdose; excessive prolonged use in susceptible patients (alcoholics, ex-addicts, etc.) may result in dependence or habituation. Reduce dosage gradually after prolonged excessive dosage to avoid possible epileptiform seizures. Caution patients against driving or operating machinery until absence of drowsiness or dizziness is ascertained. Warn patients of possible reduction in alcohol tolerance. Safety for use in pregnancy has not been established.

Not indicated in children under 6 years; absolute dosage for 6 to 12 year-olds not established.

Side Effects: Therapy-interrupting side effects are rare. Transient mild drowsiness is common initially; if persistent, reduce dosage. Dizziness, vertigo and headache have also occurred infrequently; syncope, rarely. Mild paradoxical reactions (excitement, stimulation of affect) are reported in psychiatric patients. Minor diffuse rashes (morbilliform, urticarial and maculopapular) are rare. Nausea, lethargy, edema, slurred speech, tremor and altered libido are rare and generally controllable by dosage reduction. Although rare, leukopenia and hepatic dysfunction including jaundice have been reported during therapy. Periodic blood counts and liver function tests are advised. Ataxia, reported rarely, does not appear related to dose or age.

These side reactions, noted with related compounds, are not yet reported: paradoxical excitation with severe rage reactions, hallucinations, menstrual irregularities, change in EEG pattern, blood dyscrasias (including agranulocytosis), blurred vision, diplopia, incontinence, stupor, disorientation, fever, euphoria and dysmetria.

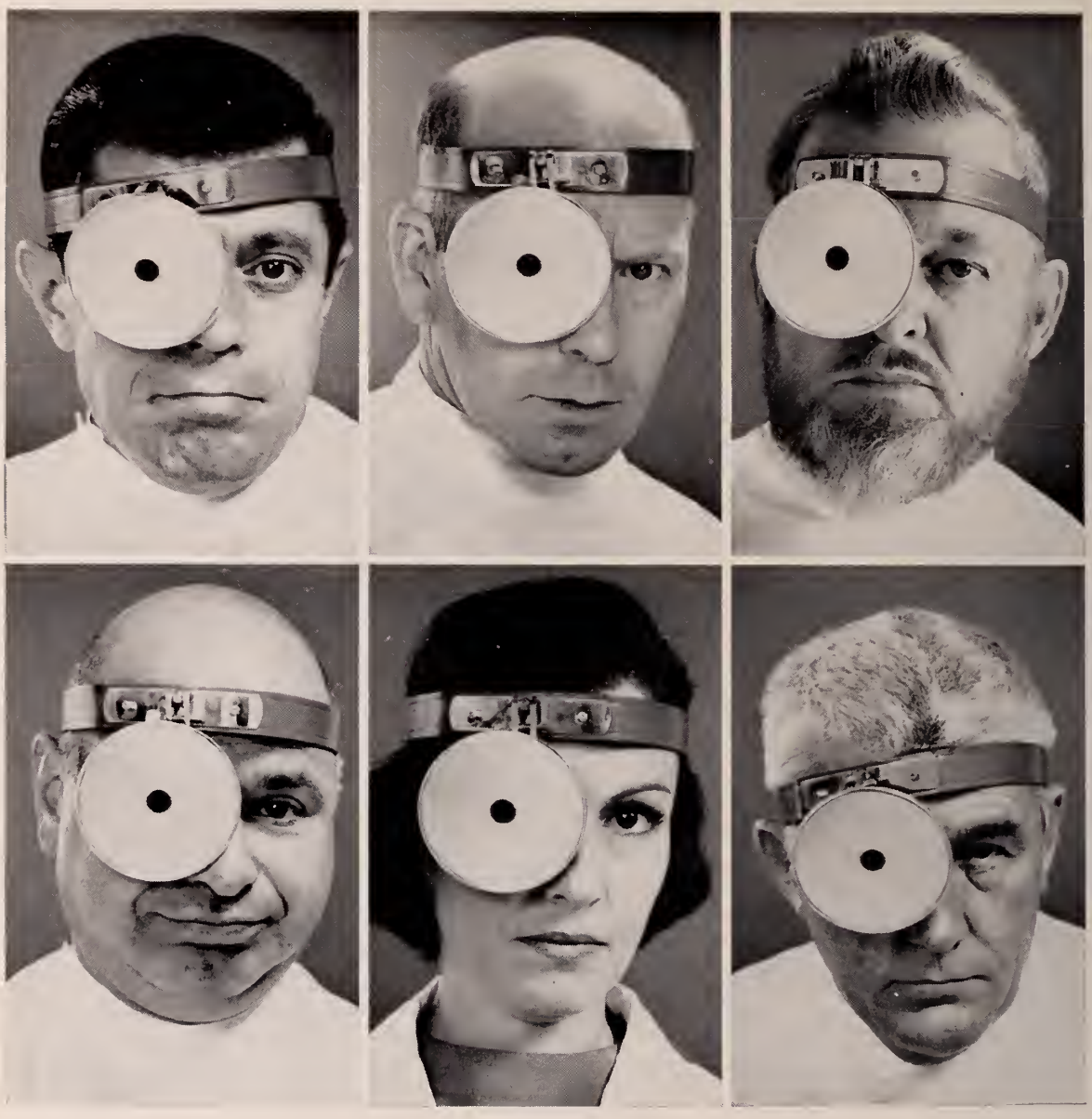
Availability: Capsules of 10, 15 and 30 mg. oxazepam.

To help you relieve anxiety and tension

Serax®
(oxazepam)

Wyeth® SERVICE TO MEDICINE

Wyeth Laboratories
Philadelphia, Pa.



"All Otolaryngologists are Alike"

Just look at them and you can see how much they have in common. Besides, they all go through pretty much the same training, and pass the same kinds of tests, and measure up to the same sort of standards. Therefore, all otolaryngologists are alike. Right?

Wrong! But that's no more preposterous than what some people say about aspirin. Namely: since all aspirin is at least supposed to come up to certain required standards, then all aspirin tablets must be alike.

Bayer's standards are far more exacting. In fact, there are at least nine *specific differences* involving moisture content, purity, potency and speed of tablet disintegration, which make the manufacture of Bayer® Aspirin so different.

These Bayer standards result in significant product benefits, including gentleness to the stomach and product stability, that enable Bayer Aspirin tablets to *stay* strong and gentle until they are taken.

So next time you hear someone say that a*ll* aspirin tablets are alike, you can say, with confidence, that "it just isn't so."

You might also say that all otolaryngologists aren't alike, either.







The full ¼ grain of phenobarb in the formula

takes the nervous edge off the pain ...helps bring out the best in codeine

Phenaphen® with Codeine

the only leading compound analgesic that calms instead of caffeinates

Each capsule contains:

Phenobarbital (¼ gr.) ..... 16.2 mg.
(Warning: may be habit forming)
Aspirin (2½ gr.) .....162.0 mg.
Phenacetin (3 gr.) .....194.0 mg.
Hyoscyamine sulfate .....0.031 mg.
Codeine phosphate.....¼ gr. (No. 2), ½ gr. (No. 3), 1 gr. (No. 4)
(Warning: may be habit forming)

Contraindications: Hypersensitivity to any ingredient.

Precautions: As with all phenacetin-containing products, avoid excessive or prolonged use.

Side Effects: Side effects are uncommon—nausea, constipation, and drowsiness have been reported.

A-H-ROBINS

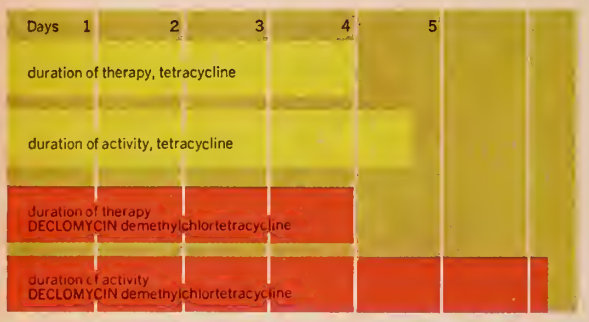
A. H. ROBINS CO., INC., Richmond, Va. 23220

why wonder about a drug

when you know

DECLOMYCIN®
DEMETHYLCHLORTETRACYCLINE

produces 1-2 "extra" days' activity



1-2 "extra" days' activity
after the last dose to protect against relapse

one 300 mg tablet b.i.d.
or
one 150 mg capsule q.i.d.

ffective in a wide range of everyday infections—respira-ory, urinary tract and others—in the young and aged—he acutely or chronically ill—when the offending organ-sms are tetracycline-sensitive.

Contraindication—History of hypersensitivity to demethyl-hlortetracycline.

Warning—In renal impairment, usual doses may lead to xcessive systemic accumulation and liver toxicity. Under uch conditions, lower than usual doses are indicated nd, if therapy is prolonged, serum level determinations nay be advisable. A photodynamic reaction to natural or rtificial sunlight has been observed. Small amounts of rug and short exposure may produce an exaggerated unburn reaction which may range from erythema to evere skin manifestations. In a smaller proportion, pho-oallergic reactions have been reported. Patients should void direct exposure to sunlight and discontinue drug at he first evidence of skin discomfort.

Precautions and Side Effects—Overgrowth of nonsuscep-ible organisms may occur. Constant observation is essential. If new infections appear, appropriate measures should be taken. Use of demethylchlortetracycline during tooth development (last trimester of pregnancy, neonatal period and early childhood) may cause discoloration of the teeth (yellow-grey-brownish). This effect occurs mostly during long-term use but has also been observed in short treatment courses. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment. Side reactions include glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis and dermatitis. If adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy. Anaphylactoid reactions have been reported.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products.

Capsules: 150 mg; *Tablets:* film coated, 300 mg, 150 mg, and 75 mg of demethylchlortetracycline HCl.

LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York
419-6-4075
Lederle



After anorectal surgery...

METAMUCIL®

brand of psyllium hydrophilic mucilloid

- **Reduces painful strain...**

  The soft, easily propelled bulk created by Metamucil allows comfortable elimination with a minimum of effort and irritation.

- **Softens stools...**

  Metamucil absorbs water and creates a soft, pliant fecal mass which is demulcent to mucosal surfaces.

- **Relieves irritation...**

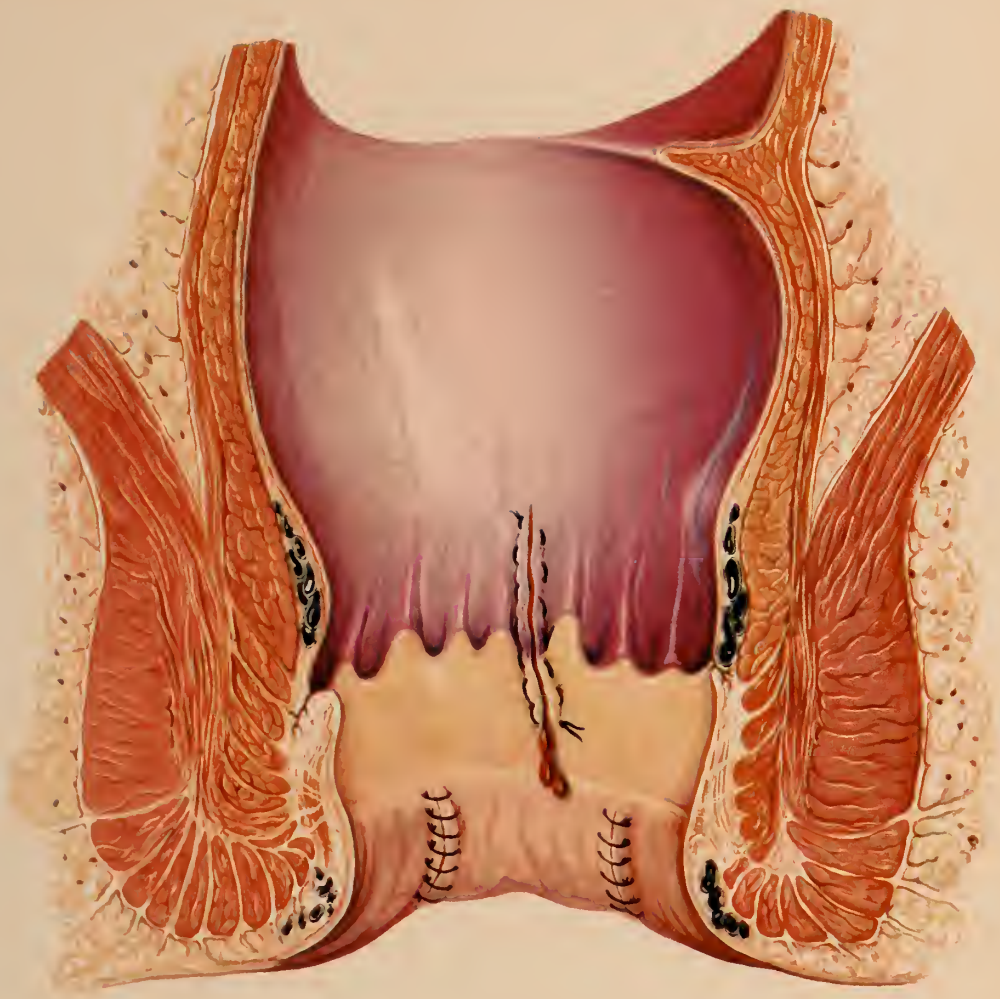
  Metamucil provides "smoothage" to prevent the formation of scybalous concretions and to lessen painful tenesmus.

- **Encourages healing...**

  Softening of the colonic content with Metamucil allays abrasive pressure and congestion at denuded postsurgical sites.

- **And in nonsurgical conditions...**

  Metamucil minimizes both the pressure of strain on perineal structures and the physical irritation of hard masses on local lesions.



Usual Adult Dosage:

One rounded teaspoonful of Metamucil powder in a glass of cool liquid, or one packet of Instant Mix Metamucil in a glass of water. An additional glass of liquid is helpful.

Metamucil powder contains equal amounts of refined, purified psyllium and dextrose furnishing 14 calories and a negligible amount of sodium in each dose; available in containers of 4, 8 and 16 ounces.

Instant Mix Metamucil furnishes 3 calories and 0.25 Gm. of sodium in each dose; available in cartons of 16 and 30 single-dose packets.

SEARLE *Research in the Service of Medicine*

Chicago, Illinois 60680


at the site of infection
(where it counts)...

Ilosone® provides more antibacterial activity than any other oral erythromycin

Acid stable, better absorbed... Ilosone produces faster, higher, more prolonged blood levels, even in the presence of food[1-3]

Because it is the most active form of oral erythromycin, Ilosone can help assure consistently greater antibacterial activity at the site of infection. Ilosone produces peak antibacterial blood levels two to four times those of other erythromycin preparations.[1,2] Not only are these levels attained earlier, but they are maintained for much longer periods. Even the presence of food does not seem to affect the activity of Ilosone.[1,3]

In the treatment of patients with bacterial infections susceptible to erythromycin, Ilosone has compiled an excellent therapeutic record. Since it exerts its greatest activity against gram-positive organisms, it is particularly useful in common respiratory and soft-tissue bacterial infections. Ilosone kills—not merely inhibits—streptococci, pneumococci, and more strains of staphylococci than any other macrolide antibiotic. This bactericidal action, coupled with the high antibacterial levels attained, makes Ilosone especially valuable in patients with low host resistance, such as infants, debilitated individuals, and diabetics.

Ilosone has shown no cross-resistance with penicillin and may be effective against organisms that have become resistant to that agent. Despite its high antibacterial activity, Ilosone has demonstrated a low incidence of side reactions. Blood dyscrasias, ototoxicity, and tooth staining have not been observed. Infrequent cases of drug idiosyncrasy, manifested by a cholestatic jaundice, have occurred, but there have been no known definite residual effects.

700121

Ilosone®

Lilly

Erythromycin Estolate

(See next page for prescribing information.)

Ilosone®/ the most active oral form of erythromycin

escription: Ilosone is the most active form of oral erythromyn that has been developed. Because it is stable in acid, well bsorbed, and excreted in lesser amounts in the bile, it provides aster, higher, and longer-lasting levels of antibacterial activity ABA) in the serum, even when taken with food, than do comarable doses of erythromycin.

ndications: Ilosone is indicated in infections caused by microrganisms sensitive to its action (especially staphylococci, hemotic streptococci, and pneumococci). The drug is therefore useful a high proportion of bacterial diseases encountered in clinical ractice and particularly in the treatment of bacterial infections f the upper and lower respiratory tract and soft tissues.

In the treatment of acute bacterial pharyngitis and tonsillitis, his antibiotic has promptly eradicated the bacteria (streptococci) nd has produced a parallel prompt clinical improvement. There ave been no group A beta-hemolytic streptococci resistant to his preparation. In beta-hemolytic streptococcus infections, reatment should be maintained for ten days to prevent the delopment of rheumatic fever or glomerulonephritis.

Erythromycin estolate has proved to be very effective in pneuococcus pneumonia and in acute bronchitis with pneumococci n culture. Bronchopneumonia and otitis media in children have esponded well to its use.

The antibiotic has been used very successfully in staphylococas infections. Good therapeutic results have been obtained in ft-tissue infections, abscesses, cellulitis, carbuncles, wound inctions, and furunculosis.

In serious staphylococcus infections, erythromycin preparaons should be used only in combination therapy with other ntimicrobial agents. As is the case with any treatment regimen sed in these severe conditions, surgical procedures should be erformed when indicated, and large dosages of the antimicroal agents should be employed. In this fashion, Ilosone has been fective in staphylococcus pneumonia, osteomyelitis, septicemia, mpyema, and meningitis.

Multiple 500-mg. doses of the drug have been useful in gonorea and syphilis. Since penicillin is the drug of choice for the eatment of syphilis and gonorrhea, erythromycin estolate ould be employed for these infections only in patients with a story of penicillin allergy. Also, other infections due to susceple bacteria in patients known to be hypersensitive to penicillin other antibiotics may be considered for treatment with Ilosone.

ontraindications: Ilosone is contraindicated in patients with a own history of sensitivity to this drug and in those with preisting liver disease or dysfunction.

de-Effects: Data obtained from seven years' use of propionyl rythromycin ester and erythromycin estolate (Ilosone) indicate at hepatic dysfunction with or without clinical jaundice may cur during or following courses of therapy with the drug.

Changes in liver function tests in such cases have been indicave of intrahepatic cholestasis. The symptoms appear to be the sult of a form of sensitization. The initial symptoms have apared in some cases after a few days of treatment but generally ave followed one or two weeks of continuous therapy or several urses of the drug. Symptoms reappear promptly if the drug readministered to sensitive patients, usually within fortyght hours. Eosinophilia was noted in peripheral blood counts. he findings readily subsided without apparent residual effects hen treatment was discontinued. Recovery was delayed in one ported instance. The physician indicated in this case that either ug-induced jaundice or viral hepatitis may have been responble for the findings.

In one clinical study involving ninety-three patients treated th the antibiotic, three cases of jaundice were observed and an ditional eleven cases developed some changes in liver function sts. Three of the patients had abnormal liver function tests a cond time on readministration of the drug.

Even though it is assumed that not all cases of jaundice have en reported, it seems clear that the number is small compared th the amount of drug that has been used. Reported cases have cluded persons in whom there had been administered other ugs known to be associated at times with hepatic side-effects d cases in which the presence of viral hepatitis or other dise may have been responsible for the findings. In some of the ses, associated gastro-intestinal symptoms simulated the colic biliary tract disease. In other instances, clinical symptoms d results of liver function tests resembled findings in extrapatic obstructive jaundice. It appears that the occurrence of undice after administration of Ilosone is infrequent, but rther investigations are being made to estimate its incidence re accurately.

In those cases mentioned above in which jaundice appeared to be definitely related to use of the drug, laboratory findings wer characterized by increased direct-reacting bilirubin, elevate alkaline phosphatase levels, negative or weakly positive cephali flocculation and thymol turbidity tests, elevated serum glutam oxalacetic transaminase levels, peripheral eosinophilia, and no mal cholecystograms.

Individual idiosyncrasy seems evident since jaundice has n been reported in other patients taking prolonged courses of th medication. Patients with chronic infection have been given 1 to 2 Gm. of the drug daily for periods of two to six months, ar patients with rheumatic fever have taken prophylactic doses 0.5 Gm. daily for two years without difficulty. In one group 144 patients who received the drug daily for two years, no jau dice was noted. It was of interest that members of six of the patients' families, who were not taking the drug, had episod of jaundice during the study period.

Transaminase and serum alkaline phosphatase levels wer determined in a group of fifty-four adults and children who too 250 mg. of Ilosone daily for an average of sixteen months rheumatic fever prophylaxis. The results were compared wit those of a similar group of forty-four patients who received pen icillin. There were no cases of jaundice in either group. Elevatio of SGPT and serum alkaline phosphatase levels during the cours of treatment was observed in one patient treated with Ilosor and in two patients treated with penicillin. Seven other patient in the group receiving Ilosone and four others in the penicilli group showed elevations in one of the tests at some time durin administration of the drugs.

Very satisfactory therapeutic results, without toxicity, wer reported in 102 pediatric patients who received short-term (ten day) courses of Ilosone in the treatment of streptococcus infe tions. Results of liver function tests in these patients were com parable to those in a similar control group who had receive penicillin.

Gastro-intestinal disturbances not associated with hepatic e fects are observed in a small proportion of individuals as a resu of a local stimulating effect of the medication on the alimentar tract; however, the normal intestinal gram-negative bacteri flora is not appreciably altered by erythromycin drugs.

Although allergic manifestations are uncommon with the us of erythromycin, there have been occasional reports of urticari skin eruptions, and, on rare occasions, anaphylaxis.

Administration and Dosage: Ilosone is administered orally.

Ilosone Pulvules®
Ilosone Chewable Tablets
Ilosone Drops
Ilosone, 125, for Oral Suspension

For infants and for children under twenty-five pounds of bod weight, the usual dosage is 5 mg. per pound every six hours; fo children twenty-five to fifty pounds, 125 mg. every six hour (Tablets Ilosone Chewable should be chewed or crushed an swallowed with water.)

For adults and for children over fifty pounds, the usual dosag of Ilosone is 250 mg. every six hours.

For severe infections, these dosages may be doubled.

When larger doses are indicated, parenteral erythromyci therapy should be considered.

In the treatment of syphilis, the recommended total dosage 20 to 30 Gm. given in divided doses for a period of ten to fiftee days. Close follow-up of the patient is necessary since erythr mycin drugs have not had adequate evaluation in all stages syphilis. Examinations of spinal fluid are recommended as pa of the follow-up therapy.

For gonorrhea, 500 mg. four times a day for four days a recommended. In the treatment of gonorrhea, patients with suspected lesion of syphilis should have a dark-field examinatio before receiving antibiotics, and monthly serologic tests shoul be made for a period of three months.

How Supplied: Pulvules Ilosone, Capsules, N.F., 125 and 250 m (equivalent to base), in bottles of 24 and 100.

Tablets Ilosone Chewable, N.F., 125 mg. (equivalent to base in bottles of 50.

Ilosone Drops, 5 mg. (equivalent to base) per drop, in 10-cc size packages, with dropper calibrated at 25 and 50 mg.

Ilosone, 125, for Oral Suspension, N.F., 125 mg. (equivaler to base) per 5-cc. teaspoonful, in 60 and 150-cc.-size package

References: 1. Griffith, R. S., and Black, H. R.: Am. J. M. Sc., *247*:69, 196
2. Griffith, R. S., and Black, H. R.: Antibiotics & Chemother., *12*:398, 196
3. Hirsch, H. A., Pryles, C. V., and Finland, M.: Am. J. M. Sc., *239*:198, 1960.

Additional information available to physicians upon request.
Eli Lilly and Company, Indianapolis, Indiana 46206.

Lilly

7001

Schedule Of Activities

FLORIDA MEDICAL ASSOCIATION ANNUAL MEETING

Hotel Americana, Bal Harbour, May 11-14, 1967

Wednesday, May 10

All Day	Press Room	Conference Room #2
All Day	Set Up Exhibits	Grand Ballroom
All Day	Blue Shield Board Meetings	Pan American
1:00-5:00 p.m.	Woman's Auxiliary	Yucatan
1:30 p.m.	Staff Work Room	Lanai
2:00 p.m.	Registration Desk Opens	Grand Ballroom Foyer
2:00 p.m.	Delegates' Registration	Grand Ballroom Foyer
8:00 p.m.	Florida Society of Internal Medicine Council meeting	Rooms 202-203
8:00 p.m.	Blue Shield C.H.A.M.P.U.S. Committee	Pan American
8:00 p.m.	Medical Student Scholarship Committee (Committee on Physician Placement)	Rooms 204-205

Thursday, May 11

All Day	Press Room	Conference Room #2
All Day	Registration and Exhibits	Grand Ballroom
All Day	Staff Work Room	Lanai
All Day	Woman's Auxiliary Hospitality Room	Room 225
7:30-9:00 a.m.	Delegates' Registration	Medallion
9:00 a.m.	First House of Delegates Session	Grand Ballroom
9:00 a.m.	Women's Auxiliary Committee Meetings	Auxiliary President's Suite
10:00 a.m.	Women's Auxiliary, Pre-Convention Board Meeting	Floridian
10:30 a.m.	Blue Shield Annual Meeting	Grand Ballroom
12:30 p.m.	Socio-Economic Panel & Buffet Luncheon	Bal Masque & Medallion
12:30 p.m.	Woman's Auxiliary Luncheon	Westward
2:00 p.m.	Reference Committee #1	Barbados
2:00 p.m.	Reference Committee #2	Bermuda
2:00 p.m.	Reference Committee #3	Pan American
2:00 p.m.	Reference Committee #4	Grand Ballroom
2:00 p.m.	Woman's Auxiliary Delegates Registration	Floridian
2:30-4:30 p.m.	Woman's Auxiliary House of Delegates	Floridian
8:00 p.m.	Florida Association of General Surgeons Scientific Film Program	Floridian

Friday, May 12

All Day	Press Room	Conference Room #2
All Day	Registration and Exhibits	Grand Ballroom
All Day	Staff Work Room	Lanai
All Day	Woman's Auxiliary Hospitality Room	Room 225
7:30-9:00 a.m.	FLAMPAC, Breakfast	Yucatan
7:30 a.m.	Florida Cancer Council, Breakfast	Rooms 202-203
8:00 a.m.	Board of Past Presidents, Breakfast	Barbados
9:00 a.m.	Scientific Session	Grand Ballroom
9:30 a.m.	Woman's Auxiliary Second House of Delegates	Floridian
11:00 a.m.	General Session (President's Guest Speaker)	Grand Ballroom
12:00 p.m.	Committee on Scientific Work, Luncheon	Yucatan
12:30 p.m.	Woman's Auxiliary and Flampac Annual Buffet Luncheon	Bal Masque & Medallion
2:00 p.m.	Scientific Session	Grand Ballroom
2:30 p.m.	Woman's Auxiliary Second House of Delegates	Floridian
5:00 p.m.	Florida Orthopedic Society, Executive Committee	Rooms 202-203
5:30-6:30 p.m.	Florida Pediatric Society, Cocktails	Eastward
6:30 p.m.	Florida Medical Association President's Reception	Poolside (Alt. Eastward & Westward)
7:30 p.m.	Florida Society of Ophthalmology, Cocktails	President of Society's Suite
7:30 p.m.	Florida Society of Otolaryngology, Cocktails	President of Society's Suite
7:30 p.m.	Tulane Alumni, Cocktails and Dinner	Floridian
7:30 p.m.	University of Virginia Alumni	Pan American
8:00 p.m.	Florida Pediatric Society Executive Committee	Rooms 204-205

Saturday, May 13

All day	Press Room	Lanai
All Day	Registration and Exhibits	Grand Ballroom
All Day	Staff Work Room	Lanai
All Day	Woman's Auxiliary Hospitality Room	Room 225
7:30 a.m.	Florida Association of General Surgeons Breakfast, Board	Carioca Terrace
7:30 a.m.	Florida Society of Ophthalmology Breakfast	President of Society's Suite
7:30 a.m.	Florida Society Otolaryngology Breakfast	President of Society's Suite
8:00 a.m.	Florida Obstetric and Gynecologic Society, Exec. Comm. Breakfast	Eastward
8:00 a.m.	Florida Pediatric Society- Business	Westward
8:00 a.m.	Florida Orthopedic Society, Scientific	Medallion
9:00 a.m.	Florida Society of Internal Medicine	Bal Masque
9:00 a.m.	Florida Society of Otolaryngology, Business	Barbados
9:00 a.m.	Florida Neurosurgical Society, Scientific	Yucatan
9:00 a.m.	Florida Pediatric Society, Scientific	Westward
9:00 a.m.	Florida Society of Pathologists, Business	Rooms 204-205
9:00 a.m.	Florida Society of Neurology	Conference Room #2
9:00 a.m.	Florida Society of Ophthalmology, Scientific	Bermuda
9:00 a.m.	Florida Society of Physical Medicine and Rehabilitation, Business	Conference Room #3
9:00 a.m.	Florida Psychiatric Society, Business	Floridian
9:00 a.m.	Florida Obstetric and Gynecologic Society, Business	Eastward
9:00 a.m.	Florida Radiological Society, Scientific	Pan American
9:00 a.m.	Florida Chapter, American College of Surgeons, Business and Scientific	Grand Ballroom
9:00-all day	Woman's Auxiliary (Lunch) South District Workshop	Indoor Pool
9:00 a.m.	Florida Society of Dermatology, Scientific	Heather Room, Balmoral
9:00 a.m.	Florida Society of Anesthesiologists, Board of Directors	Victoria, Balmoral
9:00 a.m.	Florida Allergy Society, Business	Club Room, Balmoral
9:00 a.m.	Florida Urological Society, Scientific	Argyle, Balmoral
9:00 a.m.	Florida State Board of Health	Mr. Parham's Parlor
9:30 a.m.	Florida Proctologic Society, Registration	Rooms 202-203
10:00 a.m.	Florida Proctologic Society, Scientific	Rooms 202-203
10:00 a.m.	Florida Obstetric and Gynecologic Society, Scientific	Eastward
10:30 a.m.	Florida Society of Otolaryngology, Scientific	Barbados
11:00 a.m.	Florida Neurosurgical Society, Business	Yucatan
11:15 a.m.	Florida Society of Ophthalmology, Business	Bermuda
12:00 noon	Florida Society of Dermatology, Luncheon	Heather, Balmoral
12:00 noon	Florida Orthopedic Society, Business	Medallion
12:00 noon	Florida State Surgical Division, International College of Surgeons, Luncheon & Business	Embassy, Balmoral
12:00 noon	Florida Society of Ophthalmology, Luncheon	Carioca Terrace
12:00 noon	Florida Society of Pathologists, Luncheon with Cocktails	Rooms 204-205
12:00 noon	Florida Chapter, American College of Chest Physicians, Lunch & Business	Gaucho
12:30 p.m.	Florida Pediatric Society, Business	Westward
1:00 p.m.	Florida Radiological Society, Business	Pan American
1:00 p.m.	Florida Society of Internal Medicine Luncheon	Bal Masque

Saturday, May 13 (Cont.)

1:00 p.m.	Florida Society of Plastic & Reconstructive Surgery, Scientific	Barbados
1:30 p.m.	Florida Society of Pathologists, Scientific	Rooms 204-205
1:30 p.m.	Florida Society of Anesthesiologists, Business	Victoria, Balmoral
1:30 p.m.	Florida Society of Dermatology, Business	Heather, Balmoral
2:00 p.m.	Florida Allergy Society, Scientific	Club Room, Balmoral
2:00 p.m.	Florida Psychiatric Society, Scientific	Floridian
2:00 p.m.	Florida Orthopedic Society, Business	Medallion
2:00 p.m.	Florida Chapter, American College of Chest Physicians, Fireside Conferences	Gaucho
2:00 p.m.	Florida Urological Society, Business	Argyle, Balmoral
2:00 p.m.	Florida Society of Preventive Medicine, Business	Eastward
2:00 p.m.	Florida Association of General Surgeons, Business and Scientific	Grand Ballroom
2:00 p.m.	Florida Neurosurgical Society, Scientific	Yucatan
2:00 p.m.	Florida Proctologic Society, Business	Rooms 202-203
2:00 p.m.	Florida Academy of General Practice, Board of Directors	Bermuda
2:30 p.m.	Florida Society of Internal Medicine, Council	Bal Masque
3:00 p.m.	Florida Society of Preventive Medicine, Scientific	Eastward
3:00 p.m.	Florida Society of Plastic and Reconstructive Surgery, Business	Barbados
4:00 p.m.	Florida Neurosurgical Society, Business	Yucatan
6:00 p.m.	Florida Orthopedic Society, Cocktails	Medallion
6:00 p.m.	Florida Neurosurgical Society, Cocktails	Yucatan Aztec
6:30 p.m.	Florida Society of Ophthalmology and Florida Society of Otolaryngology, Cocktails	Caribbean Suite
6:30 p.m.	Florida Radiological Society, Cocktails	Pan American
6:30 p.m.	Florida Chapter, American College of Surgeons, Cocktails	Westward
6:30 p.m.	Florida Allergy Society, Cocktails	Club Room, Balmoral
6:30 p.m.	Florida Urological Society, Cocktails	President of Society's Suite
6:30-7:30 p.m.	Florida Psychiatric Society, Cocktails (President's Reception)	Floridian
6:30 p.m.	Florida Pediatric Society, Cocktails	Eastward
6:30 p.m.	Florida Proctologic Society, Cocktails and Dinner	(Not in Hotel)

Sunday, May 14

Morning	Registration	Foyer to Bal Masque/ Medallion
All Day	Work Room & Press Room	Lanai
7:30 a.m.	Florida Society of Crippled Children, Breakfast	Yucatan
7:30-9:00 a.m.	Delegates' Registration	Foyer to Bal Masque/ Medallion
9:00 a.m.	Second House of Delegates Session	Bal Masque & Medallion
1:00 p.m.	Post Convention Board of Governors Meeting, Luncheon	Pan American
	Florida Medical Foundation	Pan American

Scientific Speakers

Friday Morning, May 12, Scientific Session

Surgical Diseases Producing Respiratory Distress in the Newborn

Richard H. Blank, M.D., Leffie M. Carlton Jr., M.D., and Richard G. Connar, M.D.
Tampa



Dr. Blank

Respiratory failure is the leading cause of death in the newborn. While hyaline membrane disease and neonatal atelectasis are responsible for the majority of cases, there are certain patients who have surgically correctable lesions.

We have selected 10 cases that demonstrate many of the problems that one encounters in managing these patients. Included are lesions producing upper airway obstruction, tension disorders of the lung occurring at or soon after birth and defects of the diaphragm. A brief discussion of each type of defect is given, along with slides demonstrating the findings in each case.

The Staphylococcal Carrier State in the Juvenile Diabetic

Stephen R. Zellner and Eugene Sanders, M.D.
Gainesville

(By invitation)



Mr. Zellner

The increased incidence of staphylococcal disease in diabetic patients has been a frequent clinical observation. In patients with staphylococcal disease, the anterior nares frequently contain the same phage type staphylococcus as found in the cutaneous lesion. Nasal staphylococcal carriage, then, may predispose a person to staphylococcal disease. Repression of Staphylococcus aureus when grown in association with either streptococci or gram-negative organisms was recognized by Iandolo et. al. and DiGiacinto et. al. The absence of such repressive organisms in nasal cultures of diabetic patients is hypothesized as an explanation for the staphylococcal carrier state.

A staphylococcal carrier was considered, for the purpose of this study, to be a person who harbored the same phage type organism on each of two examinations. Carrier rates of 35% and 45% were found for the control and diabetic groups respectively. In support of the proposed hypothesis, alpha hemolytic streptococci and pneumococci were isolated more frequently from the anterior nares of both control and diabetic nonstaphylococcal carriers.

The Clinical and Hemodynamic Findings in Children With Endocardial Fibroelastosis

Thomas G. McLoughlin, M.D., Gerold L. Schiebler, M.D., and L. Jerome Krovetz, M.D.
Gainesville



Dr. McLoughlin

It is the purpose of this paper to present our experience in primary endocardial fibroelastosis (EFE) as it occurs in infants and children.

This entity is not an uncommon cause of severe heart failure early in life. Once thought to be recognizable only by necropsy studies and ultimately fatal, in more children it is now being diagnosed clinically and responding adequately to digitalis therapy.

The clinical, electrocardiographic and roentgenographic manifestations in a group of infants and children fulfilling specific antemortem criteria for the diagnosis of EFE are discussed. Results of cardiac catheterization and angiocardiography are presented.

In addition to pressure, flow and resistance measurements, values for ventricular contractility (dp/dt) left ventricular stroke work, angiocardiographic analysis of left ventricular cavity and wall thickness and the role of mitral valve insufficiency in this entity are reviewed.

California Group Arbovirus Encephalitis in Florida Children

Emily H. Gates, M.D., James O. Bond, M. D., and Arthur L. Lewis, D.V.M.
Tampa



Dr. Gates

Recent reappearance of viruses in the California encephalitis group and their detection in Florida mosquitoes have stimulated interest in their role in human disease. Since 1963 the Encephalitis Research Center has included prototype strain BFS-283 in serological screening for evidence of arbovirus encephalitis. Four cases have been detected, all in children aged two to 12 years. Results of tests in a representative case are presented. Figures in parentheses indicate days after onset:

Hemagglutination-inhibition			Complement-fixation			Neutralization index (suckling mice)		
(1)	(15)	(29)	(1)	(15)	(29)	(1)	(15)	(29)
1:10	1:40	1:160	< 1:4	< 1:4	1:16	< 0.5	3.0	3.5

Onset in each case was abrupt, with headache and fever. Two patients had convulsions and became comatose; focal signs suggested brain abscess or tumor. In the other cases headache, vomiting, stiff neck and stupor were prominent features. Initial cerebrospinal fluid had WBC 6 to 344 cc. and protein 11 to 91 mg.%. Observation for 16 to 40 months indicated apparent complete recovery in each case. One child had recurrence of seizures 24 days after onset of the illness, none thereafter; her EEG is now normal.

During 1963-1966 reported cases in the United States exceeded 150; the patients were usually under age 15 and the majority were males. One death is known. Investigation usually discloses rural or woodland exposure.

Surgery for Coronary Artery Disease and Its Complications

DeWitt C. Daughtry, M.D., John G. Chesney, M.D., Harold C. Spear, M.D.,
Thomas O. Gentsch, M.D., and Parry B. Larsen, M.D.
Miami



Dr. Daughtry

Coronary artery disease kills approximately 500,000 people per year. Until recently, little has been done to lower this fantastic toll of lives. Several forms of surgery are of palliative and curative value in carefully selected patients with coronary artery disease and its complications.

We have treated surgically more than 125 patients with these previously hopeless problems. The procedures used have been coronary artery embolectomy, resection of ventricular aneurysms, implantation of internal mammary arteries (right and left) into the ischemic myocardium and the use of various implantable electronic devices to correct functionally complete heart block.

Many of the patients in this series have been returned to their former occupations, and most others have been returned to a state of comfortable and useful life.

Illustrative slides and a short motion picture will be presented to define better the indications, treatments, surgical technique and results.

Treatment of "Non-ideal" Patients With Chronic Renal Insufficiency

Felix Lo Cicero, M.D., Lawrence Kahana, M.D., and Robert C. Price Jr., M.D.
Tampa

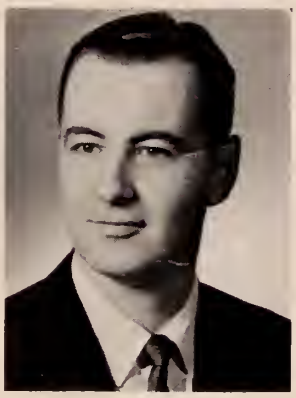


Dr. Lo Cicero

Previous reports of repeated hemodialysis treatment of chronic renal insufficiency have emphasized the importance of selection of the so-called "ideal" patient. The criteria mentioned include youth, emotional stability, absence of long-standing hypertension, absence of vascular disease and absence of congestive heart failure. The purpose of this paper is to present our experience with repeated hemodialysis in four uremic patients with generalized cardiovascular disease. Dialysis was carried out via a twin coil Kolff-Travenol dialyzer. In general, dialysis was carried out twice weekly for the four patients. Details of the clinical problems, techniques of management, and results are presented. In general, it has been our experience that patients with long-standing hypertension, generalized vascular disease and congestive heart failure can be satisfactorily maintained by repetitive hemodialysis.

Long Term Maintenance Therapy With a New Diuretic, Furosemide (Lasix)

Macey H. Keyes, M.D. and Martin S. Belle, M.D.
Miami



Dr. Keyes

Twenty-three private outpatients with congestive heart failure due to rheumatic or arteriosclerotic heart disease and one with portal cirrhosis were treated for a period of three to 15 months with furosemide (Lasix), a new nonmercurial, nonthiazide diuretic. It may be employed orally or parenterally, with extremely rapid action intravenously. Dosage ranged from 40 mg. to 160 mg. daily, either singly or in divided doses.

Satisfactory clinical response was obtained in 80% of the patients. A discussion of nonresponders is given. Laboratory determinations of hemoglobin, white blood cell count, sodium, potassium, chloride, CO_2, BUN, uric acid, bilirubin and serum glutamic oxalacetic transaminase were carried out during the study. Significant electrolyte changes were seen in only one patient. In none was potassium lowered or BUN raised. Side effects were of low incidence and minor nature. Discussion of diuretic efficacy from the standpoint of weight loss alone, as against clinical appraisal of the total patient, is presented. Analysis of diuretic dosage in general and furosemide in particular is given. It is concluded that furosemide is a safe and effective diuretic for long term management of patients with congestive heart failure.

Malignant Disease of the Anal Canal

James Morris, M.D. and Thad Moseley, M.D.
Jacksonville



Dr. Morris

A review of all histologic types of primary malignant disease involving the anal canal encountered at the Duval Medical Center during a 15 year period (1951-1966) is presented. The 20 cases available for study emphasize the rarity of neoplasia arising in this anatomic location. The histologic diagnoses included epidermoid carcinoma, adenocarcinoma considered of anal duct origin, transitional cloacogenic carcinoma, basal cell carcinoma, malignant melanoma, and anaplastic endothelioma of mesenchymal origin.

The ages of the patients ranged from 19 months to 80 years, averaging 56.8 years. Twelve of the 20 patients were female and 14 were Negro. Presenting symptoms were rectal pain, bleeding, and mass. Findings of possible etiologic significance were: multiple separate primary malignant lesions, family history of carcinoma of the rectum, condyloma acuminatum, lymphopathia venereum, and previous or concomitant hemorrhoids and/or anal fissure.

Details of diagnosis, treatment, and long term follow-up are presented and discussed.

Guest Scientific Speakers

Panel Discussions, Friday Afternoon, May 12, Scientific Session

"Medical, Surgical and Pediatric Aspects of Liver Disease"

Moderator: Martin H. Kalser, M.D., Miami



Dr. Tisdale



Dr. Voorhees



Dr. Brown



Dr. Kalser

Panel members are William A. Tisdale, M.D., Professor and Chairman, Department of Medicine, College of Medicine, University of Vermont, Burlington, Vermont; Arthur B. Voorhees Jr., M.D., Associate Professor of Clinical Surgery, College of Physicians and Surgeons, Columbia University and Associate Attending Surgeon, Presbyterian Hospital, New York City; Audrey K. Brown, M.D., Professor, Department of Pediatrics, Medical College of Georgia, Augusta, Georgia. (One additional panelist to be selected)

"Current Concepts in Treatment of Hypertension"

Moderator: Gordon H. Ira Jr., M.D., Jacksonville



Dr. Morris



Dr. Gunnells



Dr. Poutasse



Dr. Ira

Panel Members are J. Robert Cade, M.D., Associate Professor and Chief, Renal Division, Department of Medicine, College of Medicine, University of Florida, Gainesville, Florida; George C. Morris Jr., M.D., Associate Professor of Surgery, College of Medicine, Baylor University, Houston, Texas; J. Caulie Gunnells Jr., M.D., Assistant Professor of Medicine, Division of Nephrology, Duke University Medical Center, Durham, North Carolina and Eugene F. Poutasse, M.D., Urologist and Surgeon, Norfolk Medical Center, Norfolk General, DePaul, and Leigh Memorial Hospitals, Norfolk, Virginia, and General Hospital of Virginia Beach, Virginia Beach, Virginia. (Photograph of Dr. Cade not available)



GET AWAY FROM THAT TELEPHONE

Steal an hour, a day, a week—fishing, cruising, loafing. Stamas years of know-how give you superb quality and performance. Plenty of room for family and friends. Enclosed cabin, 2 full-length bunks, marine toilet. Famous Stamas Level Ride in any water, at all speeds. All fiberglass. V-24 Clearwater is trailerable without special highway permits. And priced so low you can't say no!

WRITE Dept. F for color brochures and name of nearest dealer. Stamas Boats are built in Florida; enjoyed all over the world.

Stamas BOATS, INC.
THE FOLKS WHO WROTE THE BOOK ON BUILDING FINEST FIBERGLASS BOATS
Tarpon Springs, Florida 33589





when he just can't sleep

Tuinal®

Sodium Amobarbital and Sodium Secobarbital

(One-Half Sodium Amobarbital and One-Half Sodium Secobarbital)



Tuinal helps wakeful patients fall asleep fast, stay asleep all night.

Indications: Tuinal, comprised of equal parts of Seconal® Sodium (sodium secobarbital, Lilly) and Amytal® Sodium (sodium amobarbital, Lilly), is indicated for prompt and moderately long-acting hypnosis.

Contraindications: Barbiturates should not be administered to anyone with a history of porphyria, nor should they be given in the presence of uncontrolled pain, because excitement may result.

Warning: May be habit-forming.

Precautions: Tuinal should be used cautiously in patients with decreased liver function, since prolongation of effect may occur.

Adverse Reactions: Idiosyncrasy, such as excitement, hangover, or pain, may appear. Hypersensitivity reactions occur in some patients, especially in those with asthma, urticaria, or angioneurotic edema.



Dosage: 1½ to 3 grains at bedtime.

Supplied: ¾, 1½, and 3-grain Pulvules®.

Additional information available to physicians upon request.
Eli Lilly and Company • Indianapolis, Indiana 46206

Lilly

700196

In peptic ulcer... antacid therapy with a new benefit



CONTAINS A BALANCED COMBINATION OF THE MOST WIDELY USED ANTACIDS— FOR RAPID NEUTRALIZATION. PLUS SIMETHICONE— TO CONTROL THE FACTOR WHICH ANTACIDS ALONE CANNOT INFLUENCE.

Mylanta®

- In Mylanta, aluminum and magnesium hydroxides are balanced to minimize the chance of constipation or laxation and still achieve rapid acid neutralization and pain relief.
- The positive action of simethicone helps relieve the painful gas symptoms which often accompany the peptic ulcer syndrome.
- The nonfatiguing flavor and smooth, nongritty consistency of tablets and liquid encourage continued patient cooperation during long-term therapy.

Composition: Each Mylanta chewable tablet or teaspoonful (5 ml.) of liquid contains: magnesium hydroxide, 200 mg.; aluminum hydroxide, dried gel, 200 mg.; simethicone, 20 mg. **Dosage:** one or two tablets, well chewed or allowed to dissolve in the mouth, or one or two teaspoonfuls of liquid to be taken between meals and at bedtime.

The Stuart Company, Pasadena, California
Division of Atlas Chemical Industries, Inc.

Stuart



Photo professionally posed

Mike expects a penicillin injection. He's about to be pleasantly surprised.

His physician is going to prescribe an oral penicillin —Pen•Vee® K (potassium phenoxymethyl penicillin). It's usually so rapidly and completely absorbed that therapeutic serum levels are produced in 15 to 30 minutes. Higher serum levels generally last longer than with oral penicillin G.

Indications: Infections due to pathogens susceptible to oral penicillin G. Prophylaxis of rheumatic fever in patients with previous history of the disease.

Precautions: Skin rash, symptoms resembling those of serum sickness, or other manifestations of penicillin-allergy may occur. Measures for treating anaphylaxis should be readily available: epinephrine, oxygen and pressor drugs for relief of immediate allergic reactions; antihistamines and corticosteroids for delayed effects. Penicillin may delay or prevent the appearance of primary syphilitic lesions. Patients with gonorrhea who are suspected of concurrent syphilitic infections should be tested serologically for at least 3 months. Where lesions of primary syphilis are suspected, dark-field examination should precede use of penicillin. As with other antibiotics overgrowth of nonsusceptible organisms may occur; if so, discontinue and take appropriate measures. Treat β-hemolytic streptococcal infections with full therapeutic dosage for at least 10 days to prevent development of rheumatic fever or glomerulonephritis.

Contraindications: Infections caused by nonsusceptible organisms; history of penicillin sensitivity.

Composition: Tablets—125 mg. (200,000 units) and 250 mg., (400,000 units); Liquid—125 mg. (200,000 units) and 250 mg. (400,000 units) per 5 cc.

Wyeth Laboratories Philadelphia, Pa.

ORAL **Pen•Vee® K**
(potassium phenoxymethyl penicillin) Wyeth®



Perhaps there have been times when you wanted to prescribe erythromycin and triple sulfas for little patients. Now you can—with a choice of two new fine-tasting pediatric forms.

New–Two Pediatric Forms of Erythromycin and Triple Sulfas





ERYTHROCIN®-SULFAS Chewable (Erythromycin ethyl succinate-trisulfapyrimidines chewable tablet)

In clinical trials[1,2], this orange-flavored tablet was given to 55 patients, aged four months to 18 years.

Diagnoses (multiple in some cases) represented a cross section of bacterial infections commonly seen in pediatric office practice.

Therapy was given from three to 12 days, with an average of six days.

Of the 55 patients, 30 were reported cured within 72 hours, while 22 showed partial recovery within the same time, and subsequent clinical cure.

A clinical cure rate of 94.5%

ERYTHROCIN®-SULFAS Granules (Erythromycin ethyl succinate-trisulfapyrimidines granules for oral suspension)

87 patients were treated[1,2]—all children, ages four months to 15 years.

The diagnoses were multiple in some cases and were chiefly bacterial infections of the respiratory tract.

Dosage was maintained from three to 10 days; average treatment was five days. All of the ill children accepted the orange-flavored suspension favorably.

53 were clinically cured within 72 hours, while 32 showed partial relief within the same time, and subsequent clinical cure.

701358

A clinical cure rate of 97.7%

1. Case Reports on File, Dept. Clin. Development, Abbott Laboratories.
2. Polley, R.F.L., Use of Erythromycin-Sulfas in Office Practice, Western Med., 7:177, July, 1966.

ABBOTT

Brief Summary on next page

ERYTHROCIN®-SULFAS
Brief Summary

Contraindications: Known sensitivity to erythromycin or sulfonamides. Because of the possibility of kernicterus with sulfonamides, do not use in pregnancy at term, premature or newborn infants.

Warnings: As with other forms of sulfonamide therapy, carefully evaluate patients with liver or kidney damage, urinary obstruction, or blood dyscrasia. Deaths have been reported from hypersensitivity reactions and blood dyscrasias following use of sulfonamides. Perform blood counts and liver and kidney function tests if used repeatedly at close intervals or for long periods.

Precautions, Side Effects: Occasionally mild abdominal discomfort, nausea or vomiting may occur with erythromycin, generally controlled by reduction of dosage. Mild allergic reactions (such as urticaria and other skin rashes) may occur. Serious allergic reactions have been extremely infrequent. Use sulfonamides with caution in patients with a history of allergy. Assure adequate fluid intake to prevent crystalluria and institute alkali therapy if indicated. If overgrowth of nonsusceptible organisms occurs, withdraw the drug and institute appropriate treatment. If a patient should show signs of hypersensitivity, appropriate countermeasures (e.g. epinephrine, steriods, etc.) should be administered and the drug withdrawn.

Adverse Reactions: Sulfonamide therapy may be associated with headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, skin rash, injection of the conjunctiva and sclera, petechiae, purpura, hematuria and crystalluria.

Side effects due to erythromycin are infrequent, but occasional abdominal discomfort, nausea, or vomiting, urticaria and other skin rashes may occur.

Supplied: The Granules for Oral Suspension come in bottles of 60 ml. and 150 ml. The Chewable tablets are in bottles of 50. Each 5-ml. teaspoonful of reconstituted Granules or each Chewable tablet provides erythromycin ethyl succinate equivalent to 125 mg. of erythromycin activity and 167 mg. of each of sulfadiazine, sulfamerazine and sulfamethazine.

ABBOTT

701358

mudrane®

for

- EMPHYSEMA
- ASTHMA
- CHRONIC BRONCHITIS
- BRONCHIECTASIS

The fast-disintegrating uncoated tablet gives relief in 15 minutes

Each tablet contains:

Potassium Iodide	195 mg.
Aminophylline	130 mg.
Phenobarbital, Caution: May be habit forming...	21 mg.
Ephedrine HCl	16 mg.

FEDERAL LAW PROHIBITS
DISPENSING WITHOUT PRESCRIPTION

Precautions: Usual for aminophylline-ephedrine-phenobarbital. Iodides may cause nausea, long use may cause goiter. Discontinue if symptoms of iodism develop.

Iodide contraindications: tuberculosis, pregnancy.

DOSAGE

One tablet, with full glass of water, 3 or 4 times daily.

Dispensed in bottles of 100 and 1000 tablets.

MUDRANE GG—Formula, dosage and package identical to Mudrane—*except*—100 mg. glyceryl guaiacolate replaces the potassium iodide. The value of Mudrane cannot be enjoyed by a small group in which K.I. is contraindicated. Mudrane GG is prepared for this group.

MUDRANE GG ELIXIR—Four 5 cc teaspoonfuls is equivalent to one Mudrane GG tablet. Dosage adjusted to age and weight of child. Mudrane GG Elixir is for pediatric patients and those who think they cannot swallow tablets. Dispensed in pint and half gallon bottles.

WM. P. POYTHRESS & CO., INC.
RICHMOND, VIRGINIA 23217
Manufacturers of ethical pharmaceuticals since 1856

When the problem is only skin deep

USE 'POLYSPORIN'® brand POLYMYXIN B-BACITRACIN OINTMENT

for topical antibiotic therapy with minimum risk of sensitization

Caution: As with other antibiotic products, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

Supplied in ½ oz. and 1 oz. tubes.

Complete literature available on request from Professional Services Dept. PML.

BURROUGHS WELLCOME & CO. (U.S.A.) INC.
Tuckahoe, N.Y.



Hill Crest HOSPITAL

[Formerly Hill Crest Sanitarium]

7000 5TH AVENUE SOUTH
Box 2896, Woodlawn Station
Birmingham, Alabama 35212
Phone: 205 - 595-1151

A patient centered independent hospital for intensive treatment of nervous disorders . . .

Hill Crest Hospital was established in 1925 as Hill Crest Sanitarium to provide private psychiatric treatment of nervous or mental disorders. Individual patient care has been the theme during its 41 years of service.

Both male and female patients are accepted and departmentalized care is provided according to sex and the degree of illness.

In addition to the psychiatric staff, consultants are available in all medical specialities.



MEDICAL DIRECTOR:
James A. Becton, M.D., F.A.P.A.

CLINICAL DIRECTORS:
James K. Ward, M.D., F.A.P.A.
Hardin M. Ritchey, M.D., F.A.P.A.

HILL CREST is a member of:
AMERICAN HOSPITAL ASSOCIATION . . . . . NATIONAL ASSOCIATION OF PRIVATE PSYCHIATRIC HOSPITALS . . . ALABAMA HOSPITAL ASSOCIATION . . . BIRMINGHAM REGIONAL HOSPITAL COUNCIL.
Hill Crest is fully accredited by the Joint Commission on Accreditation of Hospitals.

Hill Crest HOSPITAL
BIRMINGHAM, ALABAMA



P. L. DODGE MEMORIAL HOSPITAL

M. G. Isaacson, M.D.
Medical Director
1861 N.W. South River Drive
Miami, Florida
Phone 379-1448

A nonprofit-voluntary hospital for the treatment of nervous and mental disorders and the problems of drug addiction and alcoholic habituation. Modern diagnostic and treatment procedures including—Psychotherapy, Insulin, & Electroshock, when indicated. Adequate facilities for recreation and out-door activities. Admissions are made without regard to race, color or national origin.

Information on request
Member NAPPH, American Psychiatric Assn., & American Hospital Assn.

Convention Press

2111 North Liberty St.
Jacksonville, Florida
32206

QUALITY BOOK PRINTING
PUBLICATIONS BROCHURES

Whatever your first requisites may be, we always endeavor to maintain a standard of quality in keeping with our reputation for fine work —and at the same time provide the service desired. Let Convention Press help solve your printing problems by intelligently assisting on all details.

Anderson Surgical Supply Co.

Established 1916

Distributors of Known Brands of Proven Quality

TELEPHONE 229-8504
Morgan at Platt, P. O. Box 1228
TAMPA, FLORIDA 33601

TELEPHONE 896-3107
556 9th St., South
ST. PETERSBURG, FLORIDA

TELEPHONE 376-8253
236 S.W. 4th Ave.
GAINESVILLE, FLORIDA

TELEPHONE CHerry 1-9589
1818 N. Orange Ave.
ORLANDO, FLORIDA



Special Article

Reading is What's Happening

Editor's Note: This article was contributed to the Journal by the Florida Committee for National Library Week. Dr. George S. Palmer, FMA President, serves as a member on this committee and has commented on National Library Week in this month's President's Page.

T.M.

It is altogether fitting that National Library Week should be observed each year in America. This year the observance is from April 16 through 22, and during this week individual Americans will be asked to read at least one book. They will also be asked to turn their attention to libraries in cities, towns, schools, colleges, churches, homes and in other institutions.

President Lyndon B. Johnson has said: "The library is a collection of our knowledge and a repository of our civilization. It provides the education core for active, inquisitive minds. Its strength is measured not only by the knowledge it contains, but also by the knowledge that is put to use.

"Because libraries play such an active role in the education and enlightenment of our people, they deserve our full support. We must do much more to bring them within easy access of every American. We must assure every man the opportunity to improve his mind and better his life.

"During this National Library Week, we also recognize the selfless Americans who guide us to books of knowledge; our librarians."

The National Library Week program recognizes what's happening as the educational level in America is rising. The program is dedicated to the long range goal of encouraging lifetime reading habits, increasing people's use of libraries, expanding and improving the total reading and library resources of the nation.

Although interest in reading is increasing throughout the country, there is cause for concern in Florida regarding the status of public libraries. Some of the facts brought to light by those working with the observance of National Library Week are:

- One out of every four Floridians has no public library service.
- Eighteen counties are without public library service in Florida while nine counties contribute tax funds but have no countywide library system.
- Only five libraries in Florida meet the Florida Standards for Public Library Service of two to two and one-half books per person in the area served. No libraries in Florida meet the standards of American Library Association which call for four books per person.
- Only four libraries in Florida meet the national standards for professionally trained staffs.
- Florida ranks 34th in the nation for support per capita for public library service.
- Florida's State Library is unable to carry out functions assigned to it by state law because of critical shortages of space, staff, and it is located in a sub-basement of the Supreme Court Building.

Although reading is "happening" everywhere, Florida is lagging far behind the national standards. It is high time that Florida began paying attention to the needs of its citizens for modern, up-to-date libraries if it is to maintain its position as a leader in the space age. National Library Week helps us to focus our attention on this problem. Reading is What's Happening everywhere . . . is it happening in Florida?



Whenever the diet is faulty, the appetite poor, or the loss of food is excessive

through vomiting or diarrhea—

Valentine's
MEAT EXTRACT

stimulates the appetite,

increases the flow of digestive juices,

provides: supplementary amounts of vitamins, minerals and soluble proteins,

extra-dietary vitamin B_{12},

protective quantities of potassium, in a palatable and readily assimilated form.

Supplied in bottles of 2 or 6 fluidounces.

DOSAGE *is 1 teaspoonful two or three times daily; two or three times this amount for potassium therapy. Dilute with two or more equal volumes of water.*

VALENTINE Company, Inc.
RICHMOND 21 VIRGINIA

Tandearil®
oxyphenbutazone

Therapeutic Effects: Tandearil is a nonhormonal compound which may rapidly resolve inflammation and help restore normal joint function. Its action does not affect pituitary-adrenal function or impair immune responses. Its value in osteoarthritis is especially noteworthy because this disorder responds inconsistently to steroids and is often resistant to salicylates. Further, indomethacin is limited only to osteoarthritis of the hip, whereas oxyphenbutazone is effective in all forms of the disease.

Contraindications: Edema; danger of cardiac decompensation; history or symptoms of peptic ulcer; renal, hepatic or cardiac damage; history of drug allergy; history of blood dyscrasia. The drug should not be given when the patient is senile or when other potent drugs are given concurrently.

Warning: If coumarin-type anticoagulants are given simultaneously, watch for excessive increase in prothrombin time. Pyrazole compounds may potentiate the pharmacologic action of sulfonylurea, sulfonamide-type agents and insulin. Carefully observe patients receiving such therapy. Use with great caution in the first trimester of pregnancy.

Precautions: Obtain a detailed history and a complete physical and laboratory examination, including a blood count. The patient should be closely supervised and should be warned to report immediately fever, sore throat, or mouth lesions (symptoms of blood dyscrasia); sudden weight gain (water retention); skin reactions; black or tarry stools or other evidence of intestinal hemorrhage. Make regular blood counts. Discontinue the drug and institute countermeasures if the white count changes significantly, granulocytes decrease, or immature forms appear. Use greater care in the elderly and in hypertensives.

Adverse Reactions: The most common are nausea, edema and drug rash. The drug has been associated with peptic ulcer and may reactivate a latent peptic ulcer. Infrequently, agranulocytosis, or a generalized allergic reaction may occur and require withdrawal of medication. Stomatitis, salivary gland enlargement, vomiting, vertigo and languor may occur. Leukemia and leukemoid reactions have been reported but cannot definitely be attributed to the drug. Thrombocytopenic purpura and aplastic anemia may occur. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hyperglycemia, hepatitis, jaundice, and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently. Moderate lowering of the red cell count due to hemodilution may occur.

Dosage in Osteoarthritis: The initial daily dosage in adults is 300-600 mg. in divided daily doses. When improvement occurs, dosage should be decreased to the minimum effective level; this should not exceed 400 mg. daily, and is often achieved with only 100-200 mg. daily.

For complete details, please refer to full prescribing information. 6562-VI(B)R

Availability: Tablets of 100 mg.

Geigy Pharmaceuticals
Division of Geigy Chemical Corporation
Ardsley, New York

Geigy

Tandearil®
oxyphenbutazone

helps osteoarthritic joints move again



3 out of 4 osteoarthritics completely or markedly improved

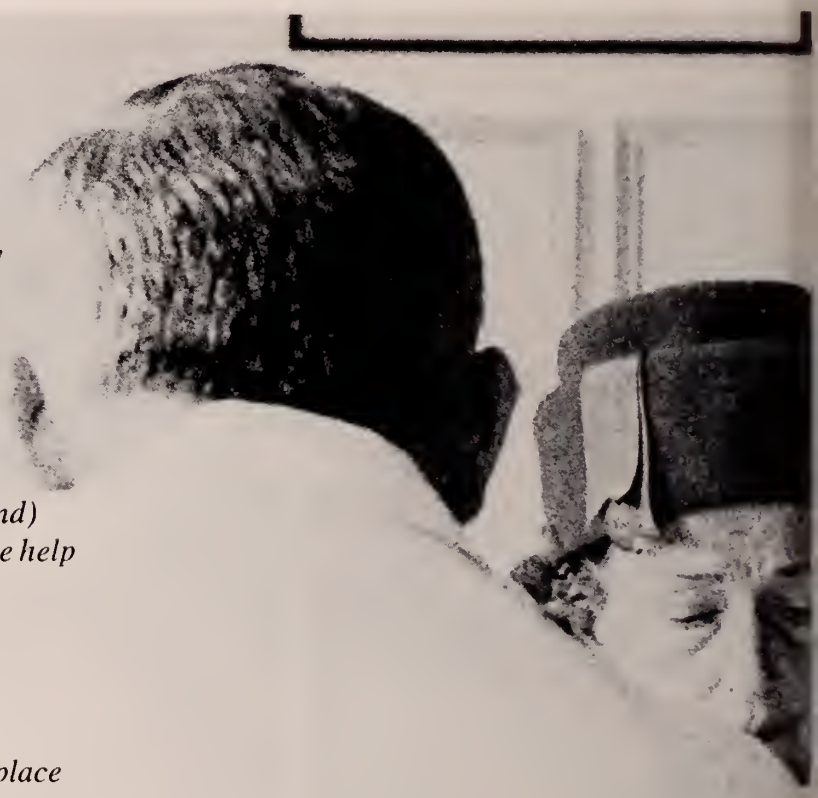
Sperling, I L. 3 Years' Experience with Oxyphenbutazone in the Treatment of Rheumatic Disorders, Applied Therapeutics 6:117, 1964	76.9% of 407 patients
Watts, T W., Jr. Treatment of Rheumatoid Disorders with Oxyphenbutazone, Clin. Med. 73:65, 1966.	84.6% of 39 patients

Please see adjoining page for brief prescribing summary.

TA-4919 PC

The Mediatric Age:

There is a growing senescent body of people on their way to malignant inactivity, who sorely need your interest and direction to help them back to a more active and useful life. There are medicines too, designed to help. One such has proved useful in clinical practice.



"A steroid-nutritional compound (Mediatric) was used in 100 patients to relieve some of the symptoms caused by degenerative changes of aging . . . This therapy resulted in improvement of 75 per cent of the patients . . ."

McNeill, A. J.: Clin. Med. *8*:518 (Mar.) 1961.

"Mediatric (steroid-nutritional compound) capsules, one a day, seem to give definite help to debilitated patients."

Arnold, E. T., Jr.: Geriatrics *12*:612 (Oct.) 1957.

"Nutritional and hormone bolstering of function in the aged may have a useful place in geriatrics."

Morgan, A. F.: Gerontologist *2*:77 (June) 1962.

"In diets which for any reason are restricted in calories, enough of these substances (B vitamins) may not be supplied . . . The use of B and C vitamin supplements may then be justified and indeed may be necessary."

Morgan, A. F.: Gerontologist *2*:77 (June) 1962.

"Intensive nutritional therapy is necessary, especially in elderly people, to correct dietary deficiencies created by large losses of protein, vitamins and other nutrients."

Riccitelli, M. L.: J. Am. Geriatrics Soc. *12*:489 (May) 1964.

Mediatric®

Designed for the "metabolically spent"

Nutritional reinforcement for those who can't – or won't – eat properly...balanced amounts of estrogen and androgen to counteract declining gonadal hormone secretion and its sequelae of premature degenerative changes...mild antidepressant for a gentle "mood" uplift...

The estrogen component in MEDIATRIC is PREMARIN® (conjugated estrogens—equine), the natural estrogen most widely prescribed for its superior physiologic and metabolic benefits.

MEDIATRIC also provides *nutritional reinforcement—blood-building factors and vitamin supplementation.* It contributes a *gentle "mood" uplift* through methamphetamine HCl.

Three different dosage forms—Liquid, Tablets, and Capsules—offer convenience and variety.

MEDIATRIC Liquid

Each 15 cc. (3 teaspoonfuls) contains:

*Conjugated estrogens—equine (Premarin®)	0.25 mg.
Methyltestosterone	2.5 mg.
Thiamine HCl	5.0 mg.
Cyanocobalamin	1.5 mcg.
Methamphetamine HCl	1.0 mg.

Contains 15% alcohol

MEDIATRIC Tablets and Capsules

Each MEDIATRIC Tablet or Capsule contains:

*Conjugated estrogens—equine (Premarin®)	0.25 mg.
Methyltestosterone	2.5 mg.
Ascorbic acid	100.0 mg.
Cyanocobalamin	2.5 mcg.
Intrinsic factor concentrate	8.0 mg.
Thiamine mononitrate	10.0 mg.
Riboflavin	5.0 mg.
Niacinamide	50.0 mg.
Pyridoxine HCl	3.0 mg.
Calc. pantothenate	20.0 mg.
Ferrous sulfate exsic.	30.0 mg.
Methamphetamine HCl	1.0 mg.

*Orally active, water-soluble conjugated estrogens derived from pregnant mares' urine and standardized in terms of the weight of active, water-soluble estrogen content.

MEDIATRIC helps keep the older patient alert and active; helps relieve general malaise, easy fatigability, vague pains in the bones and joints, loss of appetite, and lack of interest usually associated with declining gonadal hormone secretion.

CONTRAINDICATION: Carcinoma of the prostate, due to methyltestosterone component.

WARNING: Some patients with pernicious anemia may not respond to treatment with the Tablets or Capsules, nor is cessation of response predictable. Periodic examinations and laboratory studies of pernicious anemia patients are essential and recommended.

SIDE EFFECTS: In addition to withdrawal bleeding, breast tenderness or hirsutism may occur.

SUGGESTED DOSAGES: *Male and female:* 3 teaspoonfuls of Liquid, 1 Tablet, or 1 Capsule, daily or as required.

In the female: To avoid continuous stimulation of breast and uterus, cyclic therapy is recommended (3 week regimen with 1 week rest period—Withdrawal bleeding may occur during this 1 week rest period).

In the male: A careful check should be made on the status of the prostate gland when therapy is given for protracted intervals.

SUPPLIED: No. 910 – MEDIATRIC Liquid, in bottles of 16 fluidounces and 1 gallon. No. 752 – MEDIATRIC Tablets, in bottles of 100 and 1,000. No. 252 – MEDIATRIC Capsules, in bottles of 30, 100, and 1,000.



Mediatric®

steroid-nutritional compound

AYERST LABORATORIES, NEW YORK, N.Y. 10017 • Montreal, Canada

6636



Special Article

A Month With Medico In Afghanistan

EVERETT SHOCKET, M.D.

During June 1966 I served in the Avicinna Hospital of landlocked Moslem Afghanistan as a one month volunteer with MEDICO*. Afghanistan abuts the underbelly of Russia, shares a disputed border with coreligionist Pakistan and has an arid desert border with Persia (Iran), with which it shares a common language. Fierce fighters, the Afghans defeated the British thrice in the last century. But typically, the British did not lose the ensuing accords. Afghanistan kept her internal sovereignty, but the British were authorized to fashion her foreign policy. Thus did Afghanistan remain isolated from the outside world and thus did it remain truly undeveloped until post World War II.

MEDICO, Tom Dooley's legacy, sends teams to 10 countries. The Avicinna Hospital unit has been training young Afghan doctors since 1961, giving them residency-type postgraduate education comparable to that provided here in the United States, but importantly, in their own country, avoiding the risk inherent in stateside training, that is, the risk of their failing to return home.

Nature has dealt severely with the approximately 13 million Afghans. In the East they have to contend with the awesome Himalayas. Picturesque Kabul, the capital, at 7,000 feet, is surrounded by majestic snowcapped ranges. The nearest one is called the Hindu Kush (Hindu Killer; the Indians were the Hindus that the mountain destroyed). In the West and South, there is a dusty, hot desert. Only 25% of this Texas-sized country is cultivatable.

Today in Afghanistan, wooden plows turn the hard, rocky soil. Grain is threshed by heavy rocks, pulled by ox or donkey, and then winnowed by tossing it into the wind with wooden pitchforks, the grain falling near and the lighter chaff blowing away. Indeed, I left Miami the last day of the fifth month of 1966 and arrived in Afghanistan in the third month of 1345. The 1345 is the date on the Persian calendar, which began in 641 with the death of Mohammed. Truly, the date seemed appropriate to the primitiveness in which the country is mired but struggling to free itself. New Year's day is our twenty-first of March, the first day of spring.

One of the poetical paradoxes of this austerity of nature is related to the very sparsity of field grass which barely sustains the pregnant sheep searching out each tuft. Relatively disadvantaged, their freshly delivered lambs have a tough, coiled, protective coat which is admired by the posh women of Europe and America as Persian Lamb fur. It is second only to mink as a desirable fur.

Sponsored by the Herbert Jerome Research Foundation.
*Medical International Cooperation Organization, 660 First Avenue, New York, N.Y. 10016.

The lamb must be sacrificed within the first three days of life. Persian Lamb, or Karakul, is Afghanistan's major export, yielding a precious 20 million hard dollars per year. Other exports are dried nuts and dried fruits. As in all underdeveloped countries, a taste and a desire for the material things of this century exist, but not, as yet, the capacity to earn them. Thus imports exceed exports, and inflation is a constant threat.

The stimulus to join the family of nations and truly to enter the twentieth century comes from the Afghan king. Zahir Shah ascended to the throne as a teenager following the assassination of his father. His uncle ruled while the boy completed his education in France. Zahir Shah is today the leader of some 5,000 intellectuals who bemoan their biblical backwardness and their relative isolation, but he has successfully broadened the horizons of many. He has established and enlarged three secondary schools, each conducted in a major foreign language, either German, French or English, realizing that a knowledge of Persian alone is insufficient in this modern world. As early as 1930, he began sending students abroad. Until 1939, all physicians in Afghanistan were either Turks or Indians. In 1939 four American-trained Afghans returned as the first Afghan physicians. Then, the University of Kabul opened its medical school, and now there are 800 Afghan doctors and this year 80 more will graduate.

Since 1950, the Russians, the Chinese, the Americans, the West Germans and others have poured assistance into this rocky landlocked country. She boasts an airline of five four-engined propeller planes which are serviced in Tashkent, Russia. A product of hop-skip modernization, this underdeveloped country paradoxically has airfields and air routes but not a single railroad. Gleaning help from all external sources, and fully preoccupied with her mammoth day to day internal problems, Afghanistan has diplomatically remained aloof from the cold war.

The Russians have given $600 million in aid, and we, approximately half that. Most of the Russian help has gone into road building. Curiously, all the roads begin at the Russian border and radiate internally. The Russians also supervise the Royal Afghan Army and Air Force. The pilots are trained either in the U.S.A. or in the U.S.S.R., but on return to Afghanistan they all fly only Soviet Migs. We, too, have built roads. One breath-taking stretch begins at Kabul and drops 5,000 feet rather abruptly into Jalalabad enroute to the Kiplingesque Kyber Pass, the road to Pakistan.

Within the country, the Russian experts do not mix easily with the Afghans, nor with other foreigners. The 1,500 Americans do, and are well liked. It is my impression that the Afghans strongly favor the Americans they meet, but are more sympathetic to the Russian position on world affairs. At one Afghan house party, sitting shoeless on a cushion and selecting yoghurty delicacies, unpasteurized and risky, from dishes decoratively placed on a large white cloth on the floor, my Afghan physician-neighbor said, regarding Vietnam, ". . . it's taking too long." A nugget of Eastern wisdom, he had brushed aside the profound legal and moral issues that torment Americans and had gotten to the human, folksy core. Incidentally, parties move sluggishly as felicitous alcohol is interdicted by Moslem code.

Perhaps America's most extensive venture has been the mammoth TVA-like project to irrigate the arid Helmond River Valley. After the dam was completed, nomads were induced to settle in the area with the offering of free land. Unskilled farmers brought up in a thirsty land, they found themselves surfeited with water. As the land was flooded, the alkaline water not only quenched the earth's thirst, but puddled on the surface. Alkaline water will satisfactorily nourish roots, but when it settles on the surface it destroys growing plants. Thus, the project has been a disaster. There has been much cross-accusing between American experts and Afghan ministers, but the Agency for International Development is currently retrieving this tragedy of innocent well-meaning.

My hospital work emphasized teaching. I spent agonizing hours scrubbed with young men negotiating around vital structures, like the ureters, the bile duct and the vena cava, never knowing what catastrophe lay beyond the next knife stroke, and always concerned because of the mild language barrier between us. The Afghans at the Avicinna Hospital speak English, but not well enough for an operating room crisis. We saw a great deal of esophageal carcinoma and pulmonary tuberculosis because John Hankins, the two year MEDICO surgeon, is the only thoracic surgeon in the entire country. Tuberculosis, in general, is rampant. It appears as

deforming osteomyelitis, as palpable, draining lymphadenopathy with skin involvement, as pelvic disease with tuberculous peritonitis, and of course, as everyday pulmonary tuberculosis. Renal and bladder stones, particularly in young people, are sadly too common. We kept a museum of removed stones on the wall near the operating room. Malignant tumors are abundant and the incidence of sarcoma in relation to carcinoma is greater than in the United States. Duodenal ulcer disease usually presents as a pyloric stenosis with perforation or bleeding occurring rarely.

Volvulus of the sigmoid is commonplace. Fully one third of the year's cases occur in the one month of Ramadon. During this religious period no food or liquid, not even saliva, is swallowed during the day. After sundown there is gorging, and it is conjectured that the bulky rice then ingested weighs heavily, distorting the sigmoid into a volvulus. Even more interesting was the small bowel volvulus in which the entire small bowel rotates clockwise around the superior mesentery vascular pedicle. Ten such cases have been seen at the Avicinna Hospital in the last 18 months. Simple unraveling, at laparotomy, is all that is necessary. There is no thrombophlebitis or pulmonary embolic disease. There is no peripheral vascular arterial disease, even though some of the patients are in their 70's and 80's. Infant and child mortality is high, with 50% of the children dying before the age of five, but many survive into old age.

Autopsies are prohibited by their interpretation of Moslem law. As one American said, "Teaching pathology without autopsy material is like teaching organic chemistry without the carbon atom." Venereal disease is rare; prostitution, likewise. Homosexuality, really bisexuality, is commonplace and is not antisocial behavior. Young women are carefully chaperoned and their virginity insured by marriage at puberty. Loss of virginity precludes a good marriage. Young men often are seen walking hand in hand in the streets. It is said that even after marriage, men so deprecate women that they often take a young servant boy in preference to the wife as a sex partner.

The outpatient clinic was always fascinating (fig. 1). There was absolutely no order. Fierce men with jet black eyes, bushy beards, baggy trousers, disheveled turbans and big gnarled hands would force their way into the examining room, pushing each other as they did so. Often our Afghan doctors had to use physical force to eject the unwelcome excess. Three quarters of the clinic patients were always men, since women cannot visit a clinic, or leave home at all, without their husband's specific permission. The husband may think that medicine for treating his wife's illness is more costly than she is worth, and thus deny the request. Only when all the men had pushed their way into our clinic, and none were left, would the women begin timidly to appear. We knew then that we were nearly finished with the day's work load.

This situation, in itself, is an improvement over a decade ago when a male doctor simply could not examine a woman. A toy doll was held by the husband, who pointed to the site of trouble, and from this information the doctor was expected to treat. That was when all the women wore the veil. Since 1958, the veil has been slowly vanishing. Again, the initiative for the casting off of the veil, the sacred symbol of ancient religious Afghan life, has come from the royal family. Today about one third of the women in Kabul still hide behind the veil (shadri) in public, and the



Fig. 1.—Outpatient clinic.

veil is even more common outside of the modern capital.

Afghan men typically wear baggy trousers, a turban and a flowing shirt with the tails outside. This garb serves the Afghan well for when he loosens his trousers underneath the shirt and squats, skillfully flipping the front and back shirttail away he can in public, at the roadside, secretly urinate or defecate under the protective shirt flaps. Afterward, he hobbles to an adjacent stream, and with his left hand splashes his perineum to cleanse. The right hand is reserved for communal eating in which all hands enter the common platter. As the Afghan Westernizes, he first replaces his turban with a Karakul cap. Next he adds a Western vest or jacket, usually from the used markets of London, Paris or New York. In the third stage he wears Western trousers, and in the final stage he tucks the shirt inside the trousers, which change restricts him to inside toilet facilities.

Though fierce-looking and rough-acting in groups, the people are uniquely gentle as individuals. They were very appreciative of our "American" medical and nursing help.

The mullah (priest) is the sage, the lawyer, the priest, the doctor, the veterinarian and the educated scholar of the village. He is usually the sole literate person. Nationwide literacy is 10% among men and 2% among women. In 1922, when the king attempted to abolish the veil, the mullahs began a whispering campaign and fomented civil strife which forced his abdication. Until recently, when ill, an Afghan aways consulted his mullah. Often have I seen the oval scars of burns that have been inflicted on the ascitic abdomen (fig. 2), the goitrous neck, the tender epigastrium and the special talisman that they had draped to ward away evil forces. Only when symptoms and lumps persisted have the patients traveled to Kabul for hospital care. Hospital care has been frighteningly associated with a significant death rate, and this explains their reluctance. The mortality is in good part due to the lateness with which patients come to the hospital. Today Afghans are more sophisticated, and when unwell they buy, in the bazaar, an antibiotic—like tetracycline. When this fails, they then consult their mullah or camel-trek to the Kabul Hospital.



Fig. 2.—Periumbilical scars from the hot coals therapeutically applied by a provincial priest. Tape marks encompass the site of diagnostic puncture through which fluid was obtained establishing the diagnosis of tuberculous peritonitis.

The bazaar is simply a series of small shops, monotonously alike, usually undecorated and each closed to the night by a bolted wooden panel that folds away at dawn. There are no other shops. The bazaar includes the money exchangers, the food shops, the clothing shops, the pottery shops, the barber shops, the bicycle repair shops, the drug store and often, a shop that looks just like any other but which has a sign over it, "Surgeon." This is the consulting office of the surgeon (fig. 3). The druggist sells modern antibiotics and oral contraceptives without prescription. There are, however, no sanitary napkins in this truly masculine society. Peace Corps girls were suitably forewarned and made appropriate preparation for their full 21 months overseas. After arrival, however, when it became general knowledge that their sea chests would be four months delayed getting into landlocked Afghanistan, waves of panic rippled through the Corps.

Schooling is gratis. Textbooks, however, are not provided and are expensive; most students do not own a single one. Students are selected for medical (seven-year program) or other schooling by the government. Upon graduation they are assigned to a clinic in the provinces and each two years, rotated to a new post. All are civil servants and progress up the government wage scale from an initial $13 per month for the new M.D. to a maximum $96 per month for the Minister of Health. Not even in Afghanistan can one live on this small amount. Official work ends at 4:00 p.m., and the doctor, including the Minister of Health, then goes to his private office to see private patients for a fee. In addition, every transaction requires the facilitating gratuity of "bo-

shish." In a rigid Anglo-Saxon sense, this is graft, but in the Middle East it is acceptable good form without onus. Thoughtfully, the Minister of Health rotates his graduate physicians from a poor town after two years, to a wealthier one so that each has an equal chance to supplement his income. The young doctors working at the Avicinna Hospital receiving postgraduate training from the MEDICO team are assigned by the Minister of Health, much as the doctor out in the province is assigned.

Men, and now some women, are selected for nursing training by the government. Unfortunately, the girls selected are those that have failed to qualify for a university education. Thus, they begin their professional careers under a shadow of being "second rate." Further the Afghan doctor, who holds all women in low esteem, deprecates the woman nurse in day to day give-and-take. These daughters of veiled women have not been part of society outside the home long enough to have developed a sense of job responsibility. They come to work at eight, nine or 10 o'clock, or not at all, apparently without care. I suppose one cannot hide women for generations behind a veil and then expect them to step out suddenly and shoulder full responsibilities in society without these growing pains. Thus our MEDICO-trained Afghan surgeons are capable of sophisticated surgery, but they themselves must provide the appropriate involved nursing care as well.

I spent three hot, humid consulting days at the new University of Jalalabad Medical School. Dynamic, Swiss-trained Dean Baha is taking his school into its third year. Uniquely, all instruction is in English. Free texts being sent by various American publishers of paperback medical books are a great boon. The Eastern tradition of recording in one's notebook every word of the lecture and learning it by rote is hard to break, especially when the student does not have a text book at home to read. MEDICO in Kabul and the volunteer Peace Corps physicians in Jalalabad are pioneering in give-and-take teaching directed at creative thinking, rather than parroted rote. These Peace Corps M.D.'s are an exciting lot.



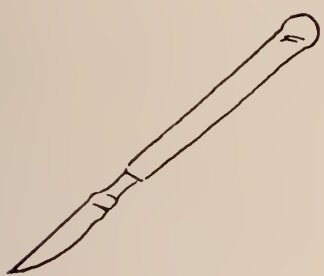
Fig. 3.—Surgeon's office in the bazaar.

They are not U. S. Public Health Service doctors treating Peace Corpsmen, but are volunteers, earning $75 a month and dealing with the natives. They are vulnerable to later military service. They are highly idealistic and it is exhilarating to work with them.

The month sped quickly while I was working with our five MEDICO nurses, our two MEDICO doctors and the seven young Afghans in training. There was a full purse of medical problems, but also much opportunity for making friends and bridging international gulfs. Each day I cycled through the dusty, hot streets,—it never rained—gazing up at the stolid white-capped mountains all around and photographing the quaint family scenes along the tumbling Kabul river. There nught be a car, axle-deep, in the river for washing, or a circle of rocks containing potatoes with young boys working them with their feet to "clean" them, or garbage being dumped into the river just above them all. At month's end there was a farewell party at the hospital, and each of the various Afghans came up, one by one, to thank me. One wished me well with, "Doctor Shocket, may your soup always be warm, and your water always cool."

For me it was a rewarding and a totally fulfilling experience. I commend it to the attention of my fellow physicians and add that volunteers for a month or two are needed by MEDICO units throughout the world.

▶Dr. Shocket, 1680 Meridian Avenue, Miami Beach 33139.





One by one
the family's downed
Because the
G.I. bug's around

Parepectolin for quick relief of acute diarrhea
...soothes colicky pain with paregoric*
...consolidates fluid stools with pectin
...adsorbs irritants with kaolin,
and protects intestinal mucosa

Whether it's a 24-hour "bug", a food problem, or simply nervousness and anxiety, Parepectolin will bring the diarrhea under control until etiology can be determined. In some cases, Parepectolin may be all the therapy necessary.

Parepectolin®

Each fluid ounce of creamy white suspension contains:
*Paregoric (equivalent) ..... (1.0 dram) 3.7 ml.
Contains opium (¼ grain) 15 mg. per fluid ounce.
warning: may be habit forming
Pectin ..... (2½ grains) 162 mg.
Kaolin (specially purified) .... (85 grains) 5.5 Gm.
(alcohol 0.69%)
Usual Adult Dose: One or two tablespoonfuls three times daily.
Usual Children's Dose: One or two teaspoonfuls three times daily.

ROER

WILLIAM H. RORER, INC.
Fort Washington, Pa.

How long will it take her to recover from her hip fracture if she just doesn't care?



)oes she really care?
she alert, encouraged,
sitive and optimistic
out getting completely
ll soon?
)r has she given in to
e demoralizing impact
confinement, disability
d dependency?
Vhen functional fatigue
mplicates convalescence,
ertonic can help...

Pleasant-tasting Alertonic is pipradrol hydrochloride—an effective cerebral stimulant whose gentle analeptic action helps counteract the apathy and inertia that can often delay convalescence—together with an excellent vitamin and mineral formula, in a satisfying 15% alcohol vehicle.

Nothing fosters confidence and a sense of well-being better than your own personal warmth, understanding and encouragement together with Alertonic to help insure prompt response.

Adequate dosage is important: Prescribe Alertonic—one tablespoonful t.i.d., 30 minutes before meals...tastes best chilled.
And for your patient's sake, prescribe Alertonic in the convenient, economical one-pint bottle.

Alertonic®

Available Only On Prescription

Each 45 cc. (3 tablespoonfuls) contains: alcohol, 15%; pipradrol hydrochloride, 2 mg.; thiamine hydrochloride (vitamin B_1) (10 MDR*), 10 mg.; riboflavin (vitamin B_2) (4 MDR), 5 mg.; pyridoxine hydrochloride (vitamin B_6), 1 mg.; niacinamide (5 MDR), 50 mg.; choline,† 100 mg.; inositol,† 100 mg.; calcium glycerophosphate, 100 mg. (supplies 2% MDR for calcium and for phosphorus) and 1 mg. each of the following: cobalt (as chloride), manganese (as sulfate), magnesium (as acetate), zinc (as acetate), and molybdenum (as ammonium molybdate).

*Multiple of adult Minimum Daily Requirement supplied.
†The need for these substances in human nutrition has not been established.

Indications: 1. Functional fatigue such as that often associated with: a depressing life experience or stressful time of life; advancing years; convalescence; limited activity or confinement. 2. Poor appetite and vitamin-mineral deficiency as they occur in: patients having faulty eating habits; geriatric patients who are losing interest in food; patients convalescing from debilitating illness or surgery.

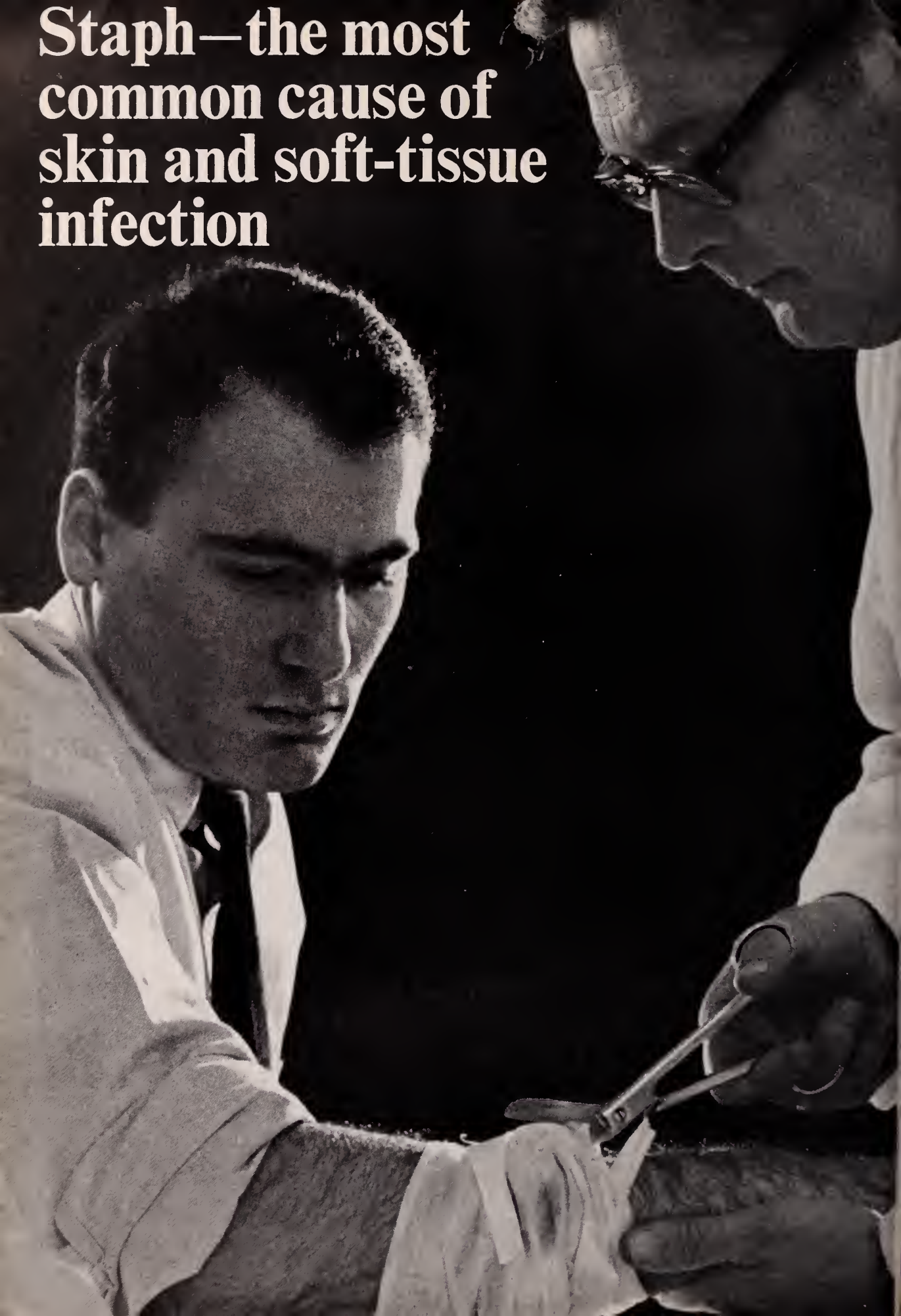
Dosage: Adults, 1 tablespoonful; children (over 15 years old), 1 to 2 teaspoonfuls; children (4 to 15 years old), 1 teaspoonful. To be taken three times daily 30 minutes before meals.

Contraindications: As with other drugs with CNS stimulating action, Alertonic is contraindicated in hyperactive, agitated or severely anxious patients and in chorea or obsessive compulsive states.

Side effects: Reports of overstimulation have been rare. Patients who are known to be unduly sensitive to the effects of stimulant drugs should be observed carefully in the initial stages of treatment.

Merrell
THE WM. S. MERRELL COMPANY
Division of Richardson-Merrell Inc.
Cincinnati, Ohio 45215

Staph—the most common cause of skin and soft-tissue infection



reliably controlled with specific therapy



A suitable dosage form for every staph situation

Staph—the most common cause of skin and soft-tissue infection—also is responsible for many more serious infections, such as pneumonia, osteomyelitis, and septicemia. Often, a seemingly minor skin infection is the source of metastatic spread to deeper structures. When findings on culture incriminate staph as the cause, Prostaphlin (sodium oxacillin) will provide specific effective therapy.

Bactericidal effectiveness. Hardly a staph organism can resist the bactericidal action of Prostaphlin (sodium oxacillin), as shown by a 34-month *in vitro* study. Of all staph isolates tested, 99.5% were sensitive to oxacillin.[1]

Clinically proven. There is a high correlation between these *in vitro* findings and clinical results. Of 610 patients treated with Prostaphlin (sodium oxacillin), 89.8% were reported cured or improved, including those with staph infections resistant to penicillin G.[2] And since resistance does not appear to develop *in vivo*, therapy with oxacillin can be extended when necessary.

Outstanding safety record. Besides being staph-specific and rapidly absorbed—Prostaphlin (sodium oxacillin) has established an outstanding record of safety during five years of widespread clinical use. Continuous high blood levels of oxacillin have not produced toxic effects on kidney function, assuring a significant margin of safety. However, as with all penicillins, the possibility of allergic response should be considered.

Capsules, Oral Solution and Injectable. Prostaphlin (sodium oxacillin) is available in three flexible dosage forms to suit the age of the patient and severity of infection—capsules, an oral solution for pediatric use, and multi-dose vials for injection, I.M. or I.V.

PRESCRIBING INFORMATION: For complete information, consult Official Package Circular. *Indications:* Infections caused by Staphylococci, particularly those due to penicillin G-resistant Staphylococci. *Contraindications:* A history of severe allergic reactions to penicillin. *Precautions:* Typical penicillin-allergic reactions may occur. Safety for use in pregnancy and premature infants is not established. Because of limited experience, use cautiously and evaluate organ system function frequently in neonates. Mycotic or bacterial superinfections may occur. Assess renal, hematopoietic and hepatic function intermittently during long-term therapy. *Adverse Reactions:* Skin rashes, pruritus, urticaria, eosinophilia, nausea, vomiting, diarrhea, fever and occasional anaphylaxis. Rare cases of reversible hepatocellular dysfunction have occurred. Moderate SGOT elevations have been noted. Thrombophlebitis has occurred occasionally during intravenous therapy and leukopenia was noted in two cases. *Usual Oral Dosage:* Adults: 500 mg. *q.*4 or *q.*6*h.* Children: 50 mg./Kg./day. *Usual Parenteral Dosage:* Adults: 250-500 mg. *q.*4 or *q.*6*h.* Children: 50 mg./Kg./day. Treat beta-hemolytic streptococcal infections for at least 10 days. Give oral drug 1 to 2 hours before meals. *Supplied:* Capsules—250 and 500 mg. in bottles of 48. Injectable—250 mg., 500 mg., and 1 Gm. dry filled vial for I.M./I.V. use. For Oral Solution—100 ml. bottle, 250 mg./5 ml. when reconstituted. **A.H.F.S. CATEGORY: 8:12.6**

References: 1. Abstracted from *Antibiotic Sensitivity of Staphylococci Studied from November 1962 through August 1965*, reported by Griffith, L.J., Staphylococcus Reference Laboratory, V.A. Hospital, Batavia, N.Y. 2. Data on file, Bristol Laboratories.

BRISTOL

BRISTOL LABORATORIES, Division of Bristol-Myers Co., Syracuse, N.Y.

Whenever you suspect staph

PROSTAPHLIN®

SODIUM OXACILLIN

Estomul does what standard anticholinergics fail to do—it provides a continuous climate for ulcer healing, eliminating the peaks and valleys of ordinary therapy. It is a comprehensive formulation providing sustained antisecretory effect on gastric activity. A recent study[1] reported a 56% satisfactory response with a maintenance schedule of Estomul in patients refractory to all previous medication. In less difficult peptic ulcer patients, a second study[2] noted a 94% satisfactory response. Both studies confirmed this clinical improvement radiologically. And both reported unusually prolonged reduction of basal secretion. With a maintenance course of Estomul therapy you can provide this continuous climate for healing in your own peptic ulcer patients.

A continuous climate for ulcer healing

(not simply episodic reduction of secretion or motility)



Estomul®

Tablets

Each swallow tablet contains: orphenadrine hydrochloride, 25 mg.; bismuth aluminate, 25 mg.; magnesium oxide, 45 mg.; aluminum hydroxide—magnesium carbonate (as co-precipitate), 500 mg.

Good-Tasting Liquid

Each tablespoon (15 cc.) contains: orphenadrine hydrochloride, 25 mg.; bismuth aluminate, 50 mg.; aluminum hydroxide—magnesium carbonate (as co-precipitate), 918 mg.

Dosage: 1 or 2 tablets or 1 or 2 tablespoons 3 times daily.

Supplied: In bottles of 100 tablets or 12 fluid oz..

Side Effects: Doses in excess of 6 tablets or 6 tablespoons daily may produce dryness of mouth or blurring of vision. Other possible side actions include: tachycardia, palpitation, urinary hesitancy or retention, dilatation of the pupil, increased ocular tension, weakness, nausea, vomiting, headache, dizziness, constipation, drowsiness, urticaria and other dermatoses. Infrequently, an elderly patient may experience some degree of mental confusion.

Contraindicated: In glaucoma, pyloric or duodenal obstruction, stenosing peptic ulcers, prostatic hypertrophy or obstruction at the bladder neck, achalasia and myasthenia gravis.

References: 1. McHardy, G. G., Judice, R. C., McHardy, R. J., and Cradic, H.: Southern Med. J. 59:459 (April) 1966. 2. Slanger, A.: Western Med. 6:205, 1965.

Riker Laboratories • Northridge, California 91324



Public Health Topics

Tuberculosis Today and Tomorrow

W. T. Edwards Tuberculosis Hospital Closes

Reported Tuberculosis Up

Tuberculosis No Longer Important In Clinical Practice

The first two newspaper headlines suggest a puzzling conflict. The third statement is an opinion expressed by a nationally known physician addressing a major medical meeting.

Lest there be complacency, the lack of decline in new cases of tuberculosis in Florida calls for emphasis. For seven years reporting and statistical procedures have been uniform. In 1959, new cases reported totaled 1,271. For 1966 the provisional total is 1,545, which is exceeded only by 1,563 cases in 1963. In part these statistics reflect Florida's increasing population, for the case rate has shown no significant increase or decrease. The number of new cases reported per 100,000 population was 26.5 in 1959 and 26.3 in 1966.

Could this lack of an expected decline reflect more intensive case finding and more complete reporting? Heretofore, in virtually all cases the patient was admitted to one of the tuberculosis hospitals and the cases were reported. Now, treatment at home is increasingly considered and these cases are more likely to remain unreported; thus, the tendency may be toward less complete reporting. As a balancing factor, follow-up has been intensified. Reported cases do not enumerate all cases, but in recent years they appear to be a consistent measure of true incidence. There is no evidence of any recent decline in new cases of clinical tuberculosis in Florida.

Why, then, was it acceptable to close one of the three remaining state tuberculosis hospitals? Modern treatment holds that bed rest no longer is a necessary part of treatment. Adequate drug therapy is highly important. The average hospital stay per case in the last 10 years has been reduced from almost 12 months to less than six months; thus, it became possible to close the hospital since this type of care was no longer an essential part of effective therapy. The decline in tuberculosis death rates of about 50% in the last decade, despite the lack of fall in new case rates, suggests the superiority of current treatment procedures.

The physician who declared that tuberculosis is no longer a disease of importance in clinical medicine complimented those with a major interest in preventive medicine. The past objective in tuberculosis control was detection of early clinical manifestations. Even in the early 1940's, the hope was to diagnose the disease when signs were manifest on percussion and auscultation. With the wide use of x-rays in clinical examination of the chest and mass surveys later in that decade, the purpose shifted to identification upon early radiological evidence. Confirming diagnosis was bacteriological identification of M. tuberculosis in sputum. Control measures usually were thus initiated by an infectious case. Emphasis is now shifting. Detection of infection prior to the

earliest clinical or radiological evidence of disease is the goal for tomorrow.

During a symposium on tuberculosis control at the 1966 convention of the American Public Health Association, there were reports of pilot trials of programs for the tuberculin testing of all persons in a community. Those with confirmed positive findings (10 mm or more reaction to intermediate strength PPD) were placed on antituberculosis therapy for one year. The suggestion was that this one procedure would promptly reduce the new case rate by 50%. This may represent the ultimate move toward the control of tuberculosis and undoubtedly indicates the trend of tomorrow. Tuberculin testing should be incorporated in the child care procedures of all practitioners. The detection of a reaction with subsequent prophylactic treatment could be the most important event in the medical care of the child and family. For each positive reactor there is a source case. Follow-up examination of contacts with the cooperation of the local public health personnel often succeeds in identifying that source.

Enlist the aid of the local health department by voluntarily reporting all positive reactors among young patients. In some communities, tuberculin testing will identify one or two confirmed reactors in a hundred tests. In other socioeconomic groups, a thousand examinations may be required for one positive finding. But that one observation may be of highest importance. The detection of infection in the preclinical stage is tomorrow's approach to tuberculosis control. Its wide adoption can change "tuberculosis eradication" from a dream to a practical objective.

Dwight J. Wharton, M.D., Director
Division of Tuberculosis Control

Albert V. Hardy, M.D., Dr.P.H.
Assistant State Health Officer
Florida State Board of Health

National and Regional Meetings in Florida

April

International College of Surgeons,
Bal Harbour, Apr. 30-May 4, '67

May

Association for Research in Ophthalmology,
Clearwater, May 1-2, '67

June

Medical Library Association,
Americana Hotel, Miami Beach, June 11-16, '67

Endocrine Society,
Miami Beach, June 15-17,'67

September

American Congress of Rehabilitation Medicine,
Americana Hotel, Miami Beach,
Aug. 27-Sept. 1, '67

October

American School Health Association,
Miami Beach, Oct. 21-26, '67

American Public Health Association,
Miami Beach, Oct. 23-27, '67

American Association of Public Health Physicians,
Miami Beach, Oct. 23-27, '67

November

Gerontological Society,
St. Petersburg, Nov. 9-11, '67

Southern Medical Association,
Miami Beach, Nov. 13-16, '67



"Livingston...vertigo is my doom!"
Cried Stanley in his doctor's room.





Said the doc, "For your ills
I've got just the pills."



Said Stan,
"Antivert, I presume."

Antivert® tablets/syrup Rx stops vertigo
(meclizine HCl, niacin)

Tablets: (meclizine HCl 12.5 mg. and niacin 50 mg.) Syrup: (each 5 cc. teaspoonful contains meclizine HCl 6.25 mg. and niacin 25 mg.)

Most widely prescribed anti-vertigo agent[1] Complete to moderate relief of symptoms in 9 out of 10 patients[2]

Antivert, the leading anti-vertigo product,[1] combines meclizine HCl, an outstanding drug for treatment of vestibular dysfunction, with niacin, a drug of choice for prompt vasodilation. Prescribe Antivert for your patients with vertigo, Meniere's syndrome and allied disorders.

Precautions and contraindications: Frequent, short-lived reactions include: cutaneous flushing, sensations of warmth, tingling and itching, burning of skin, increased gastrointestinal motility, and sebaceous gland activity. In explaining these reactions to the patient, it is suggested that they be regarded as a desirable physiological sign that the niacin is carrying out its intended function of vasodilation. Because of this vasodilation, severe hypotension and hemorrhage are obvious contraindications to Antivert therapy. Although the incidence of drowsiness and other atropine-like side effects such as dry mouth and blurring of vision is low, the physician should alert the patient to the need for due precautions when engaging in activities where alertness is mandatory. **Use in women of childbearing age:** A review of available animal data reveals that meclizine exerts a teratogenic response in the rat. In one study a dose of 50 mg./kg./day (50 times the maximum recommended human dose) produced cleft palate in 2 of 87 fetuses when administered to the rat at critical times during the first 15 days of gestation. At doses of 125 mg./kg./day, meclizine will produce 100% incidence of cleft palate in the rat. At doses of 25 mg./kg./day, decreased calcification of the vertebrae and relative shortening of the limbs were also produced in the rat, but experts disagree as to whether this is a teratogenic response. While available clinical data are inconclusive, scientific experts are of the opinion that this drug may possess a potential for adverse effects on the human fetus. Consequently, consideration should be given to initial use of a nonphenothiazine agent that is not suspected of having a teratogenic potential. In any case, the dosage and duration of treatment should be kept to a minimum. **Dosage:** One tablet or one to two teaspoonfuls (5-10 cc.) t.i.d. just before meals. Specific requirements for individual patients should be determined by the physician. **Supplied:** Tablets in bottles of 100 and 500. Syrup in pint bottles. RX only.

References: 1. Based on 1966 data from independent physicians' market survey organization. 2. Scal, J. C.: Eye Ear Nose & Throat Month. **38**:738 (Sept.) 1959.

Neobon®
geriatric ♀+ supplement

helps keep them 'on the go'

Each capsule contains:

(1) Vitamins and Minerals	
Vitamin A (acetate)	2000 U.S.P. units
Vitamin D (ergocalciferol, U.S.P.)	200 U.S.P. units
Vitamin B_1 (thiamine mononitrate, U.S.P.)	0.5 mg.
Vitamin B_2 (riboflavin, U.S.P.)	0.5 mg.
Vitamin B_6 (pyridoxine HCl, U.S.P.)	0.5 mg.
Niacinamide, U.S.P.	50 mg.
Calcium pantothenate, U.S.P.	5 mg.
Vitamin E (di-alpha tocopheryl acetate)	5 I.U.
Rutin	5 mg.
Cobalt (from cobalt sulfate)	0.033 mg.
Molybdenum (from sodium molybdate)	0.066 mg.
Copper (from copper sulfate)	0.33 mg.
Manganese (from manganese sulfate)	0.33 mg.
Magnesium (from magnesium sulfate)	2 mg.
Iodine (from potassium iodide)	0.05 mg.
Potassium (from potassium sulfate)	1.66 mg.
Zinc (from zinc sulfate)	0.4 mg.
(2) Hematopoietic Factors	
Iron (from ferrous sulfate)	3.40 mg.
Vitamin B_{12} (cobalamin concentrate, N.F., as Stablets®)	1 mcg.
Vitamin C (ascorbic acid, U.S.P.)	50 mg.
(3) Digestive Enzyme	
Pancreatic substance*	50 mg.
(4) Gonadal Hormones	
Methyltestosterone, N.F.	1.0 mg.
Ethinyl Estradiol, U.S.P.	0.006 mg.
(5) Amino Acids	
L-lysine (monohydrochloride)	50 mg.
L-Glutamic acid	30 mg.

*Enzymatically active defatted material obtained from 250 mg. of whole fresh pancreas.

For older adults who require it, daily supplementation with Neobon can help overcome decreases in endogenous gonadal hormone production, as well as deficiencies of iron, vitamins and other nutritional factors. In a single convenient capsule, Neobon provides vitamins, minerals, gonadal hormones, hematopoietic factors, digestive enzymes, and amino acids—all selected for adjunctive therapeutic value in the geriatric syndrome. For example, one of the gonadal hormones in Neobon is ethinyl estradiol. It is more slowly metabolized in the body than natural estrogens or their esters.

Precautions: Contraindicated in patients in whom estrogen or androgen therapy should not be used, as in carcinoma of the breast or prostate.

Dosage: One capsule, t.i.d. with meals, or as directed by physician.

Supplied: Bottles of 60 capsules. Rx only.

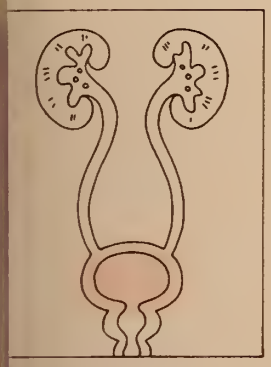
ROERIG Rx
J.B. ROERIG DIVISION
CHAS. PFIZER & CO., INC.
NEW YORK, N.Y. 10017

The battle with bacteria: cystitis

Artist's conception of cystoscopic view of bladder showing congested blood vessels and edema around ureteral orifice.



consider Gantanol (sulfamethoxazole)



For vigorous treatment of G.U. infections before the invaders become entrenched... Gantanol (sulfamethoxazole) offers a comprehensive spectrum of antibacterial effectiveness against most common gram-negative as well as gram-positive invaders. In addition, it provides satisfactory concentrations in the blood and urine with ready diffusion into interstitial fluids for antibacterial activity at foci of bacterial invasion.

High antibacterial activity against *E. coli* and other common urinary pathogens... A review of 153 cases of acute G.U. infections reported in the literature shows that 90% responded to Gantanol (sulfamethoxazole), with over one-half of these patients showing excellent relief of symptoms.[1,2] Even in stubborn chronic G.U. infections, almost 60% of 450 patients improved on Gantanol (sulfamethoxazole), including many who had not responded to other antibacterials.[1-6]

Generally uncomplicated therapy enhances the favorable clinical results... Of the total 686 patients from the studies cited,[1-6] only three discontinued therapy because of side effects. Most of the side effects reported (approximately 3%) were mild and included nausea and/or vomiting, skin rash, dizziness, headache, gastritis, generalized uneasiness and itching.[1-6]

1. Peters, J. H.: *J. Urol.*, *87*:747, 1962. 2. Draper, J. W., *et al.*: *South. M. J.*, *57*:920, 1964. 3. Stewart, B. L.: *J. Urol.*, *87*:491, 1962. 4. Hagstrom, R. S.: *Rocky Mountain M. J.*, *59*:(2), 37, 1962. 5. Arnold, J. H.: *Clin. Med.*, *71*:552, 1964. 6. Nelson, C. G.: *Colorado GP*, *3*:(3), 2, 1961.

Before prescribing, please consult complete product information, a summary of which follows:

Contraindicated in sulfonamide-sensitive patients, pregnant females at term, premature infants, or newborn infants during first three months of life.

Warnings: Use only after critical appraisal in patients with liver damage, renal damage, urinary obstruction or blood dyscrasias. If toxic or hypersensitivity reactions or blood dyscrasias occur, discontinue therapy. In intermittent or prolonged therapy, blood counts and liver and kidney function tests should be performed.

Precautions: Observe usual sulfonamide therapy precautions, including maintenance of an adequate fluid intake. Use with caution in patients with histories of allergies and/or asthma. Patients with impaired renal function should be followed closely since renal impairment may cause excessive drug accumulation. Occasional failures may occur due to resistant microorganisms. Not effective in virus or rickettsial infections.

Adverse Reactions: Headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, skin rash, Stevens-Johnson syndrome, injection of the conjunctiva and sclera, petechiae, purpura, hematuria or crystalluria may occur, in which case the dosage should be decreased or the drug withdrawn.

Dosage: Adults—4 tablets initially, then 2 tablets b.i.d. or t.i.d. depending upon severity of infection. Children—1 tablet/20 lbs initially, followed by ½ tablet/20 lbs b.i.d.

How Supplied: Tablets, 0.5 Gm, bottles of 50.

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

ROCHE

when there are bacterial invaders in the bladder, prostate or kidneys

Gantanol®
(sulfamethoxazole)

Everyone says she's a barrel of fun



But what does she think?



Many overweight patients can benefit from the appetite control provided by the sustained anorexigenic-tranquilizing action of BAMADEX SEQUELS: anorexigenic action of amphetamine; tranquilizing action of meprobamate; prolonged action through sustained release of active ingredients.

Bamadex® Sequels®

DEXTRO-AMPHETAMINE SULFATE (15 mg.) SUSTAINED RELEASE CAPSULES
WITH MEPROBAMATE (300 mg.)

to help establish a new dietary pattern

Contraindications: Dextro-amphetamine sulfate: in hyperexcitability and in agitated prepsychotic states. Previous allergic or idiosyncratic reactions to meprobamate.

Precautions: Use with caution in patients hypersensitive to sympathomimetic compounds, who have coronary or cardiovascular disease, or are severely hypertensive.

Dextro-amphetamine sulfate: Excessive use by unstable individuals may result in psychological dependence.

Meprobamate: Careful supervision of dose and amounts prescribed is advised, especially for patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g. alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on the drug. Where excessive dosage has continued for weeks or months, reduce dosage gradually. Sudden withdrawal may precipitate recurrence of preexisting symptoms such as anxiety, anorexia, or insomnia; or withdrawal reactions such as vomiting, ataxia, tremors, muscle twitching and, rarely, epileptiform seizures. Should meprobamate cause drowsiness or visual disturbances, reduce dosage and avoid operation of motor vehicles, machinery or other activity requiring alertness. Effects of excessive alcohol consumption may be increased by meprobamate. Appropriate caution is recommended with patients prone to excessive drinking. In patients prone to both petit and grand mal epilepsy meprobamate may precipitate grand mal attacks. Prescribe cautiously and in small quantities to patients with suicidal tendencies.

Side Effects: Overstimulation of the central nervous system, jitteriness and insomnia or drowsiness.

Dextro-amphetamine sulfate: Insomnia, excitability, and increased motor activity are common and ordinarily mild side effects. Confusion, anxiety, aggressiveness, increased libido, and hallucinations have also been observed, especially in mentally ill patients. Rebound fatigue and depression may follow central stimulation. Other effects may include dry mouth, anorexia, nausea, vomiting, diarrhea, and increased cardiovascular reactivity.

Meprobamate: Drowsiness may occur and can be associated with ataxia; the symptom can usually be controlled by decreasing the dose, or by concomitant administration of central stimulants. Allergic or idiosyncratic reactions: maculopapular rash, acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever, transient leukopenia. A case of fatal bullous dermatitis, following administration of meprobamate and prednisolone, has been reported. Hypersensitivity has produced fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, stomatitis, proctitis (1 case), anaphylaxis, agranulocytosis and thrombocytopenic purpura, and a fatal instance of aplastic anemia, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity, usually after excessive dosage. Impairment of visual accommodation. Massive overdosage may produce drowsiness lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse.

Lederle

LEDERLE LABORATORIES
A Division of American Cyanamid Company,
Pearl River, New York

695-6



now Novestrol™ (ethinyl estradiol U.S.P.)

estrogen replacement therapy

for the menopausal syndrome and female hypogonadism. Novestrol, a pure synthetic estrogen derivative, is related to estradiol which is the primary hormone of the ovarian follicle. It is effective orally and has all the actions of naturally occurring estrogen.

Ethinyl estradiol is the most active estrogen known. In addition to its high potency, Novestrol offers patients the advantages of minimal side effects, low cost, and convenience. Usually only a single daily dose is necessary.

Description: Each green, sugar-coated tablet contains 0.02 mg. of ethinyl estradiol U.S.P., a pure synthetic estrogen derivative, the most active estrogen known.
Indications: Menopausal syndrome and female hypogonadism.
Contraindications: Patients with tumors which estrogen might stimulate.
Precautions: Examine patients for mammary or reproductive system neoplasm. Give with great care, if at all, to patients who have precancerous lesions or family history of cancer.

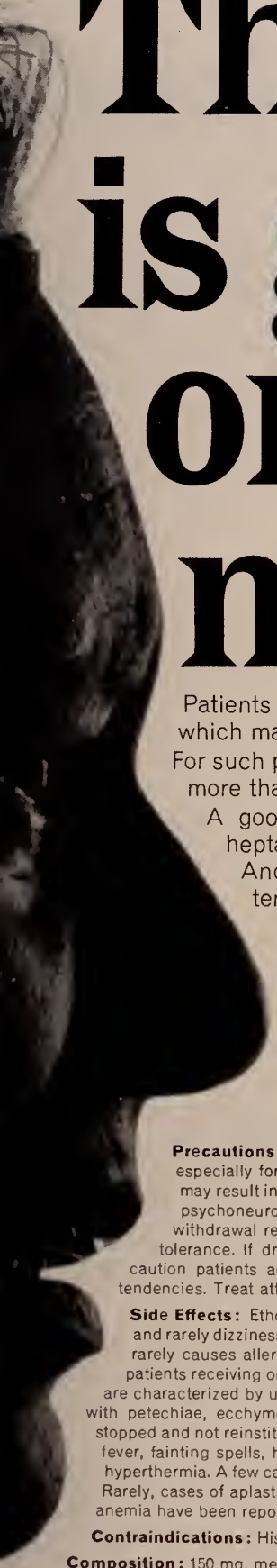
Prolonged administration or high doses may produce anterior pituitary suppression. Endometrial bleeding can usually be avoided by cyclic administration at lowest effective dose and addition of progesterone during last half of cycle. Endometrial hyperplasia may develop in spite of cyclic therapy.
Side Effects: Occasional gastrointestinal disturbances, headache and vertigo. These usually disappear following proper dosage reduction.
Dosage and Administration: Determine minimum effective dose and maintain only as long as necessary.

Menopausal Syndrome: One or two tablets (0.02 or 0.04 mg.) daily. Omit therapy one week each month. Repeat cyclic therapy until satisfactory response is obtained. Advise patient that vaginal bleeding may occur.

Female Hypogonadism: Two tablets (0.04 mg.) one to three times daily for two weeks followed by progesterone for two weeks. Continue cyclic therapy for 3-6 months; then withdraw therapy to determine if normal cycle will be instituted. Additional cyclic therapy may be required in some patients.

WILLIAM H. RORER, INC. Fort Washington, Pa.





This pain is getting on my nerves.

Patients in pain often experience concomitant anxiety and tension, which may add to the burden of pain.

For such patients, you may want to prescribe a preparation that offers more than simple analgesia.

A good choice is often EQUAGESIC® (meprobamate and ethoheptazine citrate with aspirin). It helps relieve pain. And anxiety. And skeletal muscle spasm as related to pain or anxiety and tension.

Equagesic® TABLETS
(meprobamate and ethoheptazine citrate with aspirin)

Wyeth®

Precautions: Keep out of reach of children. Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use of meprobamate may result in dependence or habituation in susceptible persons—as ex-addicts, alcoholics, severe psychoneurotics. Withdraw gradually after prolonged high dosage to avoid possibly severe withdrawal reactions including epileptiform seizures. Warn patients of possible reduced alcohol tolerance. If drowsiness, ataxia or visual disturbances occur, reduce dose. If symptoms persist, caution patients against operating machinery or driving. Give cautiously to patients with suicidal tendencies. Treat attempted suicide with immediate gastric lavage and appropriate supportive therapy.

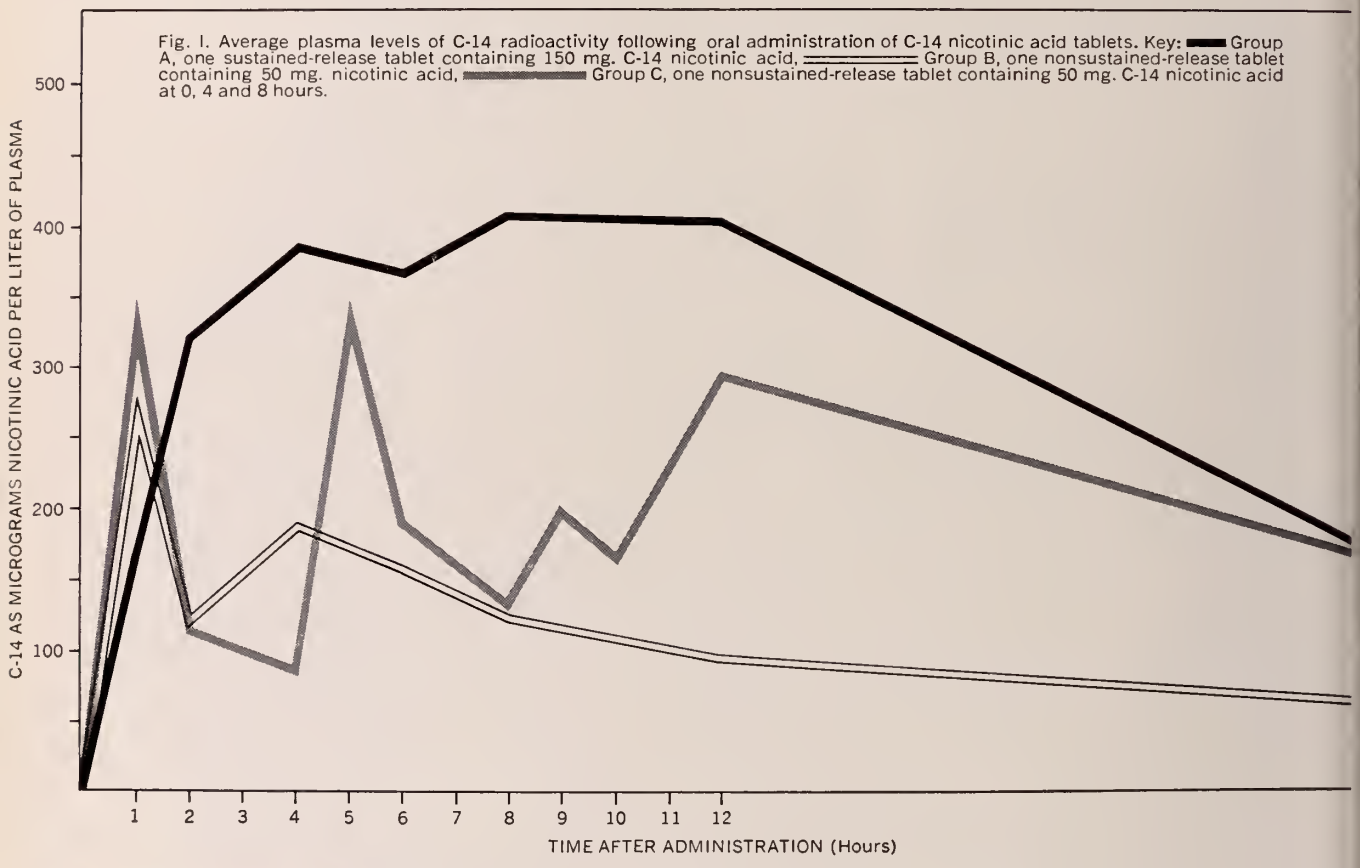
Side Effects: Ethoheptazine and aspirin may occasionally cause nausea, vomiting, epigastric distress, and rarely dizziness and CNS depression. Overdosage may result in salicylate intoxication. Meprobamate rarely causes allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever have been reported. Meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioedema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. A few cases of leukopenia, usually transient, have been reported following prolonged dosage. Rarely, cases of aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia have been reported; almost always, in the presence of known toxic agents.

Contraindications: History of sensitivity or severe intolerance to aspirin or meprobamate.

Composition: 150 mg. meprobamate, 75 mg. ethoheptazine citrate and 250 mg. aspirin per tablet.

Wyeth Laboratories Philadelphia, Pa.

Sustained circulatory, respirato
and cerebral stimulation for th





(fewer absent doses by absent-minded patients)

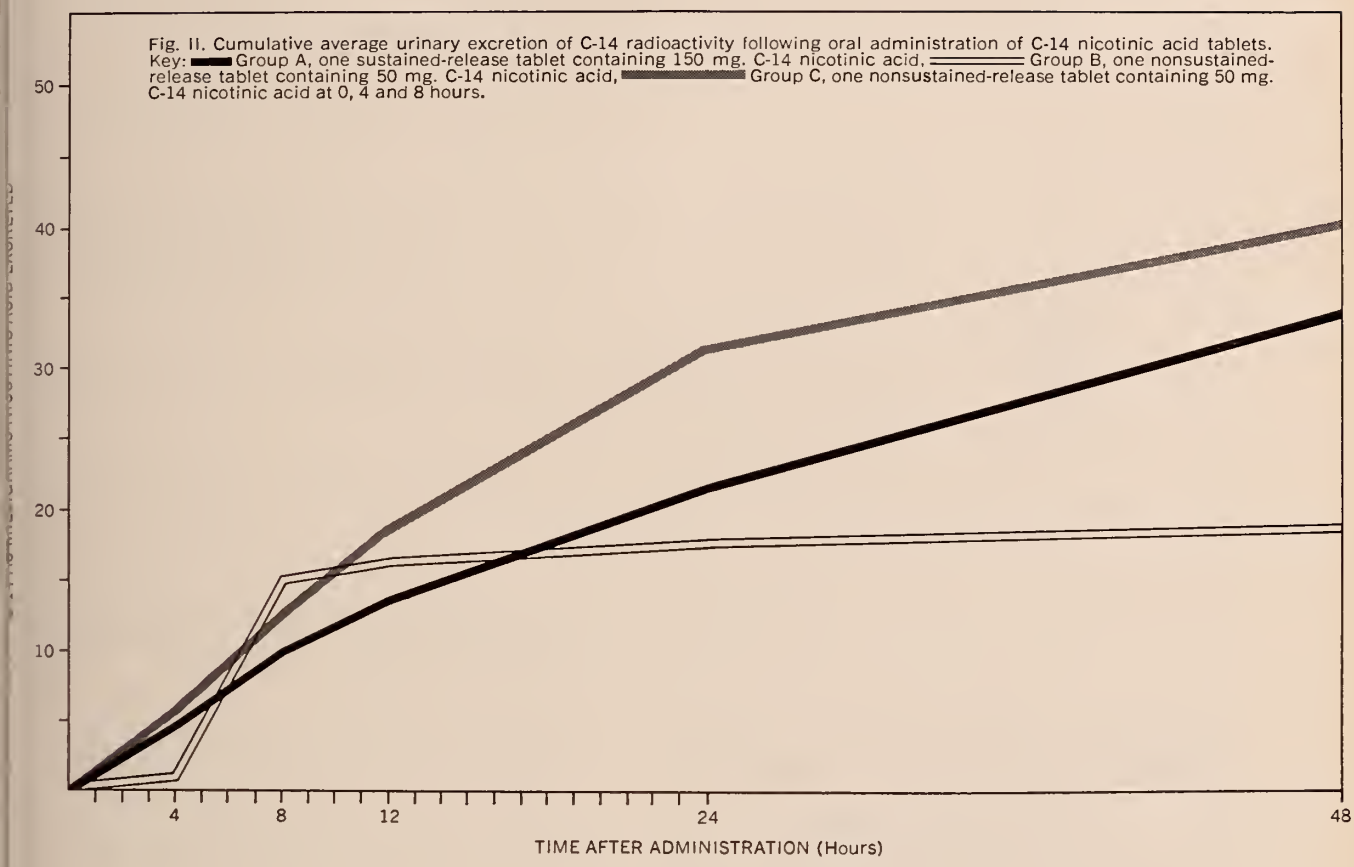
Human volunteer subjects were administered Geroniazol TT tablets with the nicotinic acid component made radioactive with C-14. Plasma and urine samples were analyzed. (See Figures I and II) The radioactive tracer study substantiated the previous clinical evidence that the release of nicotinic acid from the Geroniazol TT tablet produced a gradual rise in plasma levels to a plateau for a total of 12 hours and more.

Such proven sustained activity makes the management of geriatric patients much easier by minimizing the possibility of neglected doses through absent-mindedness or senile confusion. Therapy *can* be cor tinuous on a daily dose of only one Geroniazol TT tab let every 12 hours.

The gradual release of nicotinic acid in Geroniaz TT will provide the well-known peripheral vasodilata tion needed in patients with deficient circulation an with a minimum amount (if any) of "flushing." Als cerebrovascular circulation is complemented by per tylenetetrazol, long-established as a cerebral and re piratory stimulant.

Geroniazol TT improves the typical, unfortunat signs of senile confusion. Patients become more aler

ged and debilitated



ess confused and moody. Personal care, memory, motional stability, social attention improve. Fatigue, ıpathy and irritability are reduced.

A prescription for 100 tablets of Geroniazol TT will ɔermit your patients to enjoy the benefits of time-ɔrolonged nicotinic acid/pentylenetetrazol therapy, ıt an economical price. Dosage is only one tablet every 12 hours.

Contraindications: There are no known contraindications.

Precautions: Exercise caution when treating patients with a low convulsive threshold.

Side Effects: Side effects are rarely encountered, however due to the vasodilatation effect of nicotinic acid, transitory mild nausea, flushing, tingling and pruritus are possible.

Dosage: One tablet every 12 hours.

Supplied: Prescribe bottles of 100 tablets, to take advantage of recent price reduction.

References: 1. Report by Nuclear Science & Engineering Corp., Pittsburgh, Pa., in files of Philips Roxane Laboratories. 2. Connolly, R.: W. Virginia Med. J. *56*:263 (Aug.) 1960. 3. Curran, T. R., and Phelps, D. K.: Am. Pract. & Digest Treat. *11*:617 (July) 1960.

"First with the Retro-Steroids"
PHILIPS ROXANE LABORATORIES
Division of Philips Roxane, Inc., Columbus, Ohio
A Subsidiary of Philips Electronics and Pharmaceutical Industries Corp.

Geroniazol® TT

nicotinic acid 150 mg., pentylenetetrazol 300 mg.
Tempotrol® Time Controlled Tablet

A COMPLETE BUSINESS SERVICE

FOR THE MEDICAL AND DENTAL PROFESSIONS

Professional Management

PM FLORIDA

233 Fourth Avenue, N.E.
St. Petersburg, Florida
Phone 898-5074

1855 Hillview Street
Sarasota, Florida
Sarasota Phone 958-4493
4771 Bilmark
Ft. Myers, Florida
Ft. Myers Phone 936-3162

PROFESSIONAL MANAGEMENT FOR PHYSICIANS AND DENTISTS · since 1932 PM ©

417 Executive Building
1175 N.E. 125th St.
Miami, Florida 33125
Dade Phone 751-2101
Broward Phone 523-0286

Affiliates of Black & Skaggs Associates
Battle Creek, Michigan

YOUR Patronage Has Made Our Growth Possible

Medical Supply Company of Jacksonville



Home Office
JACKSONVILLE
4539 Beach Blvd.
Telephone FL 9-2191

ORLANDO
1511 Sligh Blvd.
Telephone GA 5-3537

Meetings

April

1- 2 Management of Arthritis and Rheumatic Diseases, George Washington Hotel, Jacksonville

8 Seminar on Advancement in Diagnosis and Management of Cancer for Physicians, St. Petersburg.

20-22 Current Concepts of the Management of Hip Disease and Trauma, University of Miami School of Medicine, Americana Hotel, Miami Beach.

28-29 Southeastern States Cancer Seminar, Eden Roc Hotel, Miami Beach.

May

11-14 Ninety-Third Annual Meeting, Florida Medical Association, Americana Hotel, Bal Harbour.

17 Psychiatry in Medical Practice, Basic and Advanced Course, Jackson Memorial Hospital, Miami.

18-20 "Current Concepts of Medical and Surgical Shock," Mount Sinai Hospital of Greater Miami, Miami Beach.

THE DUVALL HOME for RETARDED CHILDREN

A home offering the finest custodial care with a happy home-like environment. We specialize in the care of infants, bed-ridden children and Mongoloids.

For further information write to

MRS. A. H. DUVALL GLENWOOD, FLORIDA



Letters

Requiem for 'Good Old Doc'

Editor's Note: The following are excerpts from a letter written by Dr. Frank G. Slaughter, author of the Christmas editorial, "Good Old Doc Is Dead," to Dr. Warren W. Quillian.

I did not know anything about the Miami Herald editorial until a friend of mine in Fort Lauderdale sent me a copy of the "Letters to the Editor" section with a somewhat indignant reply by a doctor from Ohio visiting in Miami, who apparently didn't read the Florida Medical Association editorial but sounded off immediately.

What almost everybody concerned seemed to have missed is the fact that I was pointing out in the editorial that American medicine is getting a bad press lately in some of the most influential communications media that reach the public. One cannot just shrug off a thoughtful and analytical—and largely sympathetic—article, such as the one from the New York Times that I mentioned in the editorial. And even a diatribe like THE DOCTORS has to be recognized as valid criticism in many respects, because more than half of his criticisms are quotes from some of the most influential and respected practicing physicians and medical educators of our time.

As I travel about the country, I often speak to medical groups and particularly to students. Again and again I have been saddened to find that the idealism toward the profession which characterized my and your generation is sadly lacking in so many of the young doctors of today. And it is not a valid answer that they are so busy learning today's advanced scientific techniques they can't spend a little time retrieving values which are being lost so rapidly that they may already be beyond recovery. The role of the writer as a public gadfly is well recognized and I have never hesitated to point to unhealthy trends when they are apparent, not only to me but to responsible journalists. The more people are made to realize that there is a small tidal wave of antimedical profession criticism in the country today, the more they may be moved to do something about it. And that, of course, is all I was doing in my editorial.

Frank G. Slaughter, M.D.
Jacksonville



Ballast Point Manor

5226 Nichols St., P. O. Box 13467 Phone 831-4191
Tampa, Florida

Don Savage, Owner-Manager

Care of mild mental cases, senile disorders and invalids. Alcoholics treated. Aged adjudged cases will be accepted on either permanent or temporary basis.

Thomas B. Slade Fifty Years in Florida J. Beatty Williams

Surgical SUPPLY COMPANY

HAMILTON — RITTER — SKLAR — BURDICK
CLAY-ADAMS — B-D — BARD-PARKER — TYCOS
BAUM — WELCH-ALLYN AND MANY, MANY OTHERS

Ph. 355-8391 P. O. Box 2580 — 1050 W. Adams Street Jacksonville, Fla. 32203

APPALACHIAN HALL

ASHEVILLE Established 1916 NORTH CAROLINA



An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.

Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.

Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

Wm. Ray Griffin Jr., M.D.
Robert A. Griffin, M.D.

Mark A. Griffin Sr., M.D.
Mark A. Griffin Jr., M.D.

DIARRHEA



CANTIL®
(mepenzolate bromide)

Diarrhea, one of the most vexing symptoms of common G. I. disorders can often be curbed with Cantil (mepenzolate bromide), bringing welcome relief to the harassed patient. Relatively specific for the hyperactive colon, it helps reduce diarrhea, pain and spasm with minimal effect on other viscera. Cantil (mepenzolate bromide) is indicated whenever these symptoms are associated with irritable colon, gastroenteritis, diverticulitis, and mild to moderate ulcerative colitis.

It is an anticholinergic drug without narcotic properties. Side effects are usually mild.

IN BRIEF: One or two tablets three times a day and one or two at bedtime usually provide prompt relief. Cantil with Phenobarbital may be prescribed if sedation is required.

Dryness of the mouth, blurring of vision, constipation, nausea, vomiting, bloating and dizziness may occur but are usually mild and transitory. Urinary retention is rare. Caution should be observed in prostatic hypertrophy — withhold in glaucoma. Contraindicated in patients sensitive to phenobarbital and/or Cantil (mepenzolate bromide); in toxic megacolon, obstruction of G. I. or G. U. tract.

SUPPLIED: CANTIL (mepenzolate bromide) — 25 mg. per scored tablet. Bottles of 100 and 250. CANTIL with PHENOBARBITAL — containing in each scored tablet 16 mg. phenobarbital (warning: may be habit forming) and 25 mg. mepenzolate bromide. Bottles of 100 and 250.

LAKESIDE

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201

announcing
important dosa
reduction

new Nor

(norethindrone 1mg. c̄ mestranol 0.05

lower cost
to patients

nyl-1®

tablets

norethindrone — an original steroid from

SYNTEX

LABORATORIES INC., PALO ALTO, CALIF.

escribing information available from your pharmacist or Syntex representative.

Medical Licenses Granted

The Florida State Board of Medical Examiners report that of the 280 applicants who took the examination of the Board held January 15-17, 1967, at Jacksonville, 272 passed and have been issued licenses to practice medicine in Florida. The names, towns, medical school and year of graduation of the successful applicants follow:

Abraham, Nazem, Mayport, Fla. (West Virginia U. 1964)
Ackcurey, William George, Miami, Fla. (U. of Miami 1965)
Ahmed, Galal Mahmoud, Williamsport, Pa. (Ein Shams U. 1954)
Albo, Jacobo, Lakeland, Fla. (U. of Havana 1950)
Allen, William Corwin, Gainesville, Fla. (U. of Chicago 1960)
Andriola, Mary Repole, Gainesville, Fla. (Duke 1965)
Andriola, Michael John, Gainesville, Fla. (Duke 1965)
Arroyo, Jorge Guillermo, Isla Verde, P.R. (LaPlata Sch. of Med. 1958)
Bailey, William Charles, Birmingham, Ala. (Tulane 1965)
Balais, Miguel Francisco, Miami, Fla. (U. of Havana 1953)
Ballard, Edgar Thomas, Gainesville, Fla. (U. of Florida 1965)
Ballard, Jeanne Lacroix (f), Gainesville, Fla. (Woman's M.C. 1965)
Bancroft, Josiah Walker Jr., Jacksonville, Fla. (U. of Miami 1965)
Bard, Arthur Sheldon, Denver, Colo. (Bowman Gray 1959)
Baruch, Jack, Riverdale, N. Y. (U. of Miami 1965)
Baum, William Stanhope, Titusville, Fla. (Yale 1936)
Baumal, Allen, Miami, Fla. (U. of Toronto 1958)
Beaudry, Arthur Ainsworth, Key West, Fla. (U. of Ottawa 1956)
Benach, Bienvenido Magin, Morgantown, W. Va. (U. of Havana 1940)
Bencomo, Luis Enrique, Tampa, Fla. (U. of Havana 1952)
Berman, Perry Allen, Jacksonville, Fla. (U. of Florida 1964)
Berrios, Jose Ricardo, Homestead AFB, Fla. (U. of Puerto Rico 1959)
Boring, Charles Eugene Jr., Baltimore, Md. (U. of Florida 1965)
Boshnack, Malcolm, Coral Gables, Fla. (New York M.C. 1943)
Bossen, Edward Hecht, Durham, N.C. (Duke 1965)
Bowman, Robert Lee, Jacksonville, Fla. (M.C. of Virginia 1962)
Bracey, Elwood Daub, Philadelphia, Pa. (Temple 1962)
Brayton, John Richard Jr., Gulf Breeze, Fla. (Indiana U. 1957)
Bremer, Maryanna Dotson, Arlington, Va. (George Washington U. 1951)
Breneman, James Chester, Galesburg, Mich. (U. of Minnesota 1945)
Bridges, James Wilson (N), Miami, Fla. (Meharry M.C. 1960)
Browne, Kennedy Willett, Gainesville, Fla. (U. of Virginia 1963)
Bryar, George Edward, Rochester, Minn. (U. of Illinois 1961)
Bussey, Joseph Gibson Jr., Gainesville, Fla. (Emory 1965)
Cagle, Donald Ray, Orlando, Fla. (U. of Virginia 1957)
Calvert, William Preston, Miami Springs, Fla. (U. of Pennsylvania 1960)
Carpenter, Nathan Harry, Coshocton, Ohio (Ohio State 1959)
Carson, John William Jr., Fayetteville, N.C. (Emory 1958)
Carver, Jane, Lakeland, Fla. (Woman's M.C. 1952)
Castellanos, Augustin Waldredo, Miami, Fla. (U. of Havana 1925)
Catasus, Antonio Ubaldo, Orlando, Fla. (U. of Havana 1945)
Cerrato, Walter Albert, Tampa, Fla. (Jefferson M.C. 1961)
Chapman, Clifford Elmer, Charleston, S.C. (M.C. of Georgia 1963)
Chaviano, Francisco Antonio, Auburn, Ala. (U. of Havana 1946)
Chee, Percival Hon Yin, Miami, Fla. (U. of Rochester 1962)
Ciccarelli, Virgil, Chester, W. Va. (U. of Pittsburgh 1960)
Clark, Lowell Erskine, Ft. Lauderdale, Fla. (Ohio State U. 1965)
Clark, Patrick Joseph, St. Louis, Mo. (Marquette U. 1960)
Clowdus, Bernard Frederick, USAF Hosp. Wiesbaden (Vanderbilt 1954)
Cluff, Leighton Eggertsen, Gainesville, Fla. (George Washington U. 1949)
Coats, Eli August, Danville, Ind. (Indiana U. 1965)
Cohen, Barry Allan, New York, N.Y. (Cornell U. 1965)
Cohen, Burton Harvey, Jacksonville, Fla. (Tufts 1960)
Cohen, William, Ft. Benning, Ga. (U. of Maryland 1956)
Colditz, Richard Brooke, Decatur, Ga. (Emory 1965)
Cole, Sidney Cary, New York, N.Y. (Albert Einstein U. 1965)
Collins, Thomas Edward, Jacksonville, Fla. (St. Louis U. 1964)
Cooper, James Thomas, Atlanta, Ga. (Emory 1962)
Corteguera, Homero Joseph, W. Palm Beach, Fla. (U. of Havana 1954)
Couce, Bernardo Andres, Chicago, Ill. (U. of Havana 1957)
Cox, Arthur Anderson, Memphis, Tenn. (U. of Tennessee 1945)
Crabtree, John Dennie, Gainesboro, Tenn. (U. of Tennessee 1961)
Crespo, Luis, Tampa, Fla. (U. of Havana 1951)
Cromwell, Terry Alan, Key West, Fla. (U. of Cincinnati 1964)
DeAlmeida, Mauricio Joao, Viborg, S.D. (Coimbra U. 1949)
DeArmas, Charles Robert Jr., Winston-Salem, N. C. (Emory 1965)
DeGirolami, Ettore, Miami, Fla. (U. of Milan 1947)

Demet, Michael Burt, Ft. Bragg, N.C. (Temple 1960)
DeMinico, Charles Paul, Gainesville, Fla. (Tufts 1948)
DeQuesada, Alejandro Mercele, Gainesville, Fla. (U. of Havana 1960)
Diaz, Alfonso, River Forest, Ill. (U. of Havana 1945)
Diaz, Jose Enrique, Chicago, Ill. (U. of Havana 1949)
Diaz-Franquiz, Jose Joaquin, Tampa, Fla. (U. of Havana 1954)
DiCarlo, Robert Harling, St. Petersburg, Fla. (Padova U. 1965)
Dimlich, Stephen Henry, Minot AFB, N.D. (Western Reserve 1962)
Dominguez, Jose Carlos, Tampa, Fla. (U. of Havana 1954)
Dorsey, John Michael, Winnetka, Ill. (Rush M.C. 1931)
Dow, Thomas Wendell, Robins AFB, Ga. (U. of Vermont 1965)
Ducassi, Enrique Ramon, Gainesville, Fla. (U. of Havana 1939)
Dumois, Juan Antonio, Tampa, Fla. (U. of Havana 1960)
Dunn, Nettie May Marie, Miami, Fla. (Louisiana State U. 1965)
Dvoskin, Samuel, New York, N.Y. (Columbia U. 1945)
Echenique, Jorge, Miami, Fla. (U. of Havana 1950)
Echenique, Raul Lorenzo, Miami, Fla. (U. of Havana 1951)
Edwards, Charles Gordon Jr., Gainesville, Fla. (M.C. of Georgia 1961)
Eisen, Miguel, Orlando, Fla. (Madrid Med. Faculty 1962)
Elahi, Jalal, Williston, N.Y. (Teheran Med. School 1941)
Elmquist, John Gunnar, Ft. Polk, La. (Northwestern 1961)
Erlandson, Fridolph Evert, Cleveland Hts., Ohio (Western Reserve 1946)
Fabiani, Frank Rudolph, Miami (U. of Rome 1941)
Fandino, Hugo Rafael, Orlando, Fla. (U. of Havana 1960)
Fargason, Crayton Anthony, Key West, Fla. (Louisiana State 1963)
Fearn, William Francis, Miami, Fla. (Temple 1965)
Feinberg, Arthur Irwin, New Rochelle, N.Y. (N.Y.U. 1965)
Fields, Elmore Myron, Hempstead, N.Y. (Long Island M.C. 1936)
Fleming, John Stewart, Orlando, Fla. (U. of Tennessee 1961)
Foley, Thomas Preston Jr., Winter Park, Fla. (U. of Virginia 1963)
Franklin, Gerald Samuel, Columbia, S.C. (U. of Illinois 1960)
Freed, Gloria Green (f), St. Petersburg, Fla. (Woman's M.C. 1962)
Fronstin, Michael Howard, Tampa, Fla. (Duke 1964)
Galliano, Raul Enrique, Miami, Fla. (U. of Havana 1953)
Gallizzi, Pasquale Louis, Madeira Bch., Fla. (Rome U. 1931)
Garcia, Jose Carlos, Ft. Lauderdale, Fla. (U. of Havana 1949)
Garcia, Pablo, Miami, Fla. (Tulane 1949)
Garcia-Bengochea, Francisco, Gainesville, Fla. (U. of Havana 1941)
Garner, Julius Matthew, Jacksonville, Fla. (Loma Linda U. 1965)
Garrard, Clifford Louis Jr., Tyndall AFB, Fla. (Vanderbilt 1962)
Geiss, Joseph Paul, Houston, Texas (Syracuse U. 1945)
Giard, Henry Louis, Key West, Fla. (Tufts 1956)
Giddings, Jack Edward, Philadelphia, Pa. (Albany M.C. 1961)
Goldman, Milton Stanley, Houston, Texas (Emory 1960)
Goldman, Sherwin, Rochester, Minn. (U. of Miami 1965)
Goldstein, Gerald Bruce, Buffalo, N.Y. (U. of Buffalo 1964)
Goldstein, Marvin Ray, N. Miami, Fla. (U. of North Carolina 1965)
Grant, Charles Cheney, Key West, Fla. (U. of Texas 1963)
Graulau, Milton Felix, Shaw AFB, S.C. (U. of Mexico 1965)
Greene, John Thomas, Tampa, Fla. (U. of Amsterdam 1964)
Greenlee, Theodore Kenneth Jr., Gainesville, Fla. (Northwestern 1959)
Gregory, Louis Franklin, Charleston, S.C. (U. of Mississippi 1962)
Gross, John Michael, Milton, Fla. (Northwestern 1963)
Grossman, Joel, Miami, Fla. (U. of Tennessee 1965)
Gurri, Joseph Norbert, Coral Gables, Fla. (U. of Havana 1941)
Gurwitt, Lester Jerome, Miami, Fla. (State U. of N.Y. 1965)
Haeck, William Thomas, Savannah, Ga. (Northwestern 1964)
Harris, James Ocie, Gainesville, Fla. (U. of Mississippi 1965)
Hartmann, Harry Rodnye, Savannah, Ga. (Yale 1959)
Hecht, Sanford David, Newton Center, Mass. (Boston U. 1958)
Hejna, Thomas, Belle Glade, Fla. (Creighton U. 1960)
Heros, Orlando Maximilian, Corsicana, Texas (U. of Havana 1940)
Hill, David Dinsmore, Gainesville, Fla. (U. of Wisconsin 1962)
Hinrichsen, Josephine, Houston, Texas (Northwestern 1935)
Hochberg, Victor I., Framington, Mass. (Boston U. 1963)
Holder, Larry Benson, Gainesville, Fla. (U. of Florida 1965)
Hoogerbeets, Jacob Dirk, Gainesville, Fla. (U. of Amsterdam 1957)
Horn, Paul Conrad, Jacksonville, Fla. (Indiana U. 1964)
Hudson, Calvin Henry, Beaverton, Oregon (U. of Tennessee 1959)
Ilgenfritz, Burr D., Gainesville, Fla. (Tulane 1961)
Irons, Howard Smith, Key West, Fla. (U. of Vermont 1957)
Irwin, Thomas Melbourne Jr., St. Louis, Mo. (Tulane 1965)
Jennings, Leonard Patrick, Miami, Fla. (Georgetown U. 1959)
Johnson, Herbert Fraser, St. Petersburg, Fla. (Duke 1958)
Johnson, Oliver David, Jacksonville, Fla. (U. of Florida 1964)
Johnston, Robert Bernard, Buffalo, N.Y. (Georgetown U. 1964)
Jones, Danny Brigman, Miami, Fla. (Duke 1962)
Joyce, Eugene Edmund, Coral Gables, Fla. (Johns Hopkins 1959)
Kaebnick, Ernest Elliott, Gainesville, Fla. (U. of Pennsylvania 1962)
Katz, Myron Michael, Brooklyn, N.Y. (New York M.C. 1965)
Kaufman, Stephen Z., Brooklyn, N.Y. (New York M.C. 1965)
Kennedy, William Ennis, Akron, Ohio (Emory 1965)
Kiely, Andrew Alphonsus, New York, N.Y. (U. Coll. Cork, Ireland 1956)
Knight, Sandra Key, Clearwater, Fla. (M.C. of Georgia 1963)
Kohut, Robert Irwin, Gainesville, Fla. (U. of Chicago 1960)
Kornreich, Martin Allen, Winston-Salem, N.C. (U of Florida 1965)
Kozikowski, Edward Stanley, Rocky River, Ohio (St. Louis U. 1944)
Kunhardt, Bolivar Manuel Eugenio, Coral Gables, Fla. (U. Santo Domingo 1961)
Lamas, Juan Federico, Coral Gables, Fla. (U. of Havana 1941)
Langenbrunner, David Joseph, Miami, Fla. (U. of Louisville 1962)
Lau, Thomas Joseph, Baltimore, Md. (Yale 1960)
Lazarus, Stephen Jack, Miami, Fla. (U. of Miami 1963)

LeMaire, William Jan, Miami, Fla. (Louvain U. 1958)
Leckhart, Walter Samuel Jr., Miami, Fla. (Bowman Gray 1944)
Madariaga, Nestor Junio, Miami Beach, Fla. (Nat'l U. Colombia 1945)
Magnant, Henry Anthony, Gainesville, Fla. (Temple 1965)
Maliner, Robert Hugh, Winter Park, Fla. (Albany M.C. 1960)
Marsten, James Lawrence, Miami Beach, Fla. (N. Y. U. 1959)
Marti, Alfredo, Coral Gables, Fla. (U. of Havana 1944)
Martinez, Rafael Pedro, Orlando, Fla. (U. of Havana 1948)
Martinez-Arango, Carlos, Miami Shores, Fla. (U. of Havana 1940)
Mathews, William Barnes Jr., Kelly AFB, Texas (Tulane 1962)
Mauldin, Ronald Lee, Gainesville, Fla. (U. of North Carolina 1964)
McNair, Hal Harris, Bainbridge, Ga. (M.C. of Georgia 1960)
Mencia, Luis Felipe, Coral Gables, Fla. (U. of Havana 1946)
Mendenhall, Hiram Wayne, Gainesville, Fla. (U. of California 1952)
Middlekauff, Robert Karl, Jacksonville, Fla. (Temple 1959)
Miller, James Barry, W. Palm Beach, Fla. (M.C. of Virginia 1961)
Miller, Roy Wayne, Maxwell AFB, Ala. (U. of North Carolina 1961)
Miquel, Jorge Ignacio, Tampa, Fla. (U. of Havana 1944)
Miranda, Alexander Albert, Orlando, Fla. (U. of Madrid 1965)
Miranda, Mercedes Maria (f), Tampa, Fla. (U. of Havana 1952)
Mitchell, John Andrew, Perry, Fla. (Cornell 1952)
Montero, Angel, Tampa, Fla. (U. of Havana 1922)
Montgomery, Charles Joseph, Richmond, Va. (Ohio State 1964)
Morad, Manuel, Miami, Fla. (U. of Havana 1956)
Morgan, John Garland, Gainesville, Fla. (Duke 1962)
Moseley, John Henry, Tampa, Fla. (M.C. of Alabama 1947)
Moselle, Herbert Igor, Ft. Lauderdale, Fla. (Jefferson M.C. 1961)
Mundy, Elbert Johnson Jr., Nashville, Tenn. (U. of Miami 1956)
Muniz, Julio Cesar, Tampa, Fla. (U. of Havana 1946)
Navarro, Mario Pedro, Milledgeville, Ga. (U. of Havana 1948)
Nieman, Richard Ernest, Miami, Fla. (U. of Miami 1965)
Nodarse, Rafael, San Antonio, Texas (U. of Havana 1952)
Nuernberger, Louis G., Gainesville, Fla. (U. of Oklahoma 1955)
Nunez de Villavicencio, Santiago, Richmond, Va. (U. of Havana 1957)
O'Hara, Michael Louis, Miami, Fla. (Loyola 1965)
Olson, Robert Eric, Jamaica Plain, Mass. (Boston U. 1962)
Panke, William Francis, Scarsdale, N.Y. (N. Y. U. 1951)
Perez, Adolfo, Alejandro, Chattahoochee, Fla. (U. Santo Domingo 1946)
Perez, Guillermo Jorge, Gainesville, Fla. (U. of Paris 1961)
Perez, Hilda Wenceslaa (F), Tampa, Fla. (U. of Havana 1943)
Peterson, Charles August, Mountainview, Calif. (U. of Florida 1964)
Pickens, James Conlee, Key West, Fla. (U. of Alabama 1962)
Porter, Lawrence Donald, Orlando AFB, Fla. (U. of Miami 1962)
Portuondo, Alonso Rafael, Key Biscayne, Fla. (U. of Havana 1944)
Rand, John Hembree, Niceville, Fla. (U. Tennessee 1965)
Raphael, Pedro, Macclenny, Fla. (U. of Havana 1954)
Redd, James Vernon Jr., Charleston, S.C. (U. Tennessee 1961)
Rehmeyer, Richard Curtis, Miles, Ill. (George Washington U. 1961)
Ritrosky, John Jr., Tampa, Fla. (Upstate New York 1962)
Robinson, Morton Jonathan, Miami Beach, Fla. (Jefferson M.C. 1957)
Rodriguez, Alex Braulio, Orlando, Fla. (U. of Havana 1960)
Rodriguez, Guillermo Enrique, Gainesville, Fla. (U. of Havana 1955)
Rodriguez, Ortelio, Tampa, Fla. (U. of Havana 1951)
Rotstein, Jack, Gainesville, Fla. (U. of Toronto 1957)
Rubin, Burton, Roslyn, N.Y. (Cornell 1952)
Rust, Wilbur Clarence, Jacksonville, Fla. (Albany M.C. 1957)
Sala, Manuel Augusto, Macclenny, Fla. (U. of Havana 1948)
Sanguily, Julio Jr., Winter Haven, Fla. (U. of Havana 1955)
Sanowski, Robert Anthony, Biloxi, Miss. (Georgetown U. 1960)
Santos-Estevez, Mario Orlando, Tampa, Fla. (U. of Havana 1953)
Scales, David Frior Jr., Gainesville, Fla. (U. of Florida 1965)
Schermer, Kenneth Leroy, Portsmouth, Va. (Indiana U. 1961)
Schloss, Morton, New York, N.Y. (New York M.C. 1953)
Schulkind, Martin Lewis, Gainesville, Fla. (Chicago Med. 1960)
Senra, Antonio Jesus, Tampa, Fla. (U. of Havana 1949)
Severin, Sanford Lewis, Miami Beach, Fla. (Washington U. 1959)
Shalita, Alan Remi, Jacksonville, Fla. (Bowman Gray 1964)
Shapiro, Mitchell, Orlando, Fla. (Tulane 1965)
Shippey, Stuart Hunter Jr., Gainesville, Fla. (U. of Pennsylvania 1956)
Shmunes, Edward, Little Rock, Ark. (U. of Florida 1965)
Silverio, John, Berwyn, Pa. (U. of Havana 1947)
Simon, Stanley, Providence, R.I. (M.C. of Virginia 1949)
Smith, Prentiss Edward Jr., Miami, Fla. (Tulane 1959)
Sokoll, Martin David, Iowa City, Iowa (U. of Pittsburgh 1958)
Soler, Frank Joseph, Lathrupvillage, Mich. (U. of Havana 1951)
Soler, Gladys Pumariega (F), Jacksonville, Fla. (U. of Havana 1955)
Soler, Raul, Jacksonville, Fla. (U. of Havana 1955)
Spagnolo, Samuel Vincent, Tampa, Fla. (Temple 1965)
Spunde, Elmars Fridrichs, Tampa, Fla. (U. of Latvia 1937)
Stalker, Daniel Easton, Ft. Benning, Ga. (Emory 1950)
Stam, Robert Edward, Staten Island, N.Y. (U. of Adelaide 1949)
Stern, Floyd Allen, Torrance, Calif. (Tulane 1965)
Stewart, John Jamieson Jr., Gainesville, Fla. (Duke 1966)
Swan, Edward Fowler Woodward, Miami, Fla. (Louisiana State U. 1965)
Tabb, Waller Crockett, Charlottesville, Va. (U. of Virginia 1959)
Talbert, James Lewis, Baltimore, Md. (Vanderbilt 1956)
Tamayo, Jose Lincoln, Tampa, Fla. (Madrid Central 1958)
Taranco, Joaquin Casimiro, Chicago, Ill. (U. of Havana 1957)
Taraska, John Joseph, Staten Island, N.Y. (Jefferson M.C. 1963)
Tarr, Bernard, New York, N.Y. (Laval U. 1963)
Taylor, Burt Fowler, Panama City, Fla. (U. of Tennessee 1962)
Taylor, Robert Pierpont, Polk, La. (M.C. of Georgia 1961)
Teurbe-Tolon, Edwin Jesus, Tampa, Fla. (U. of Havana 1959)

Threlkel, James Bentley, Albany, Ga. (Vanderbilt 1963)
Todd, Donald Ralph, Gainesville, Fla. (U. of Mississippi 1964)
Turbin, Stephen, Havre de Grace, Md. (State U. of New York 1964)
Turmail, George Alvin Jr., Gainesville, Fla. (U. of Florida 1965)
Valentine, Eugene Raphael, Philadelphia, Pa. (Temple 1965)
Vazquez, Gustavo, Temple, Texas (U. of Havana 1944)
Villegas, Marco, Coral Gables, Fla. (State U.M.S. Chile 1949)
Virzi, Joseph Anthony, Orange Park, Fla. (Loyola 1962)
Wallace, Karl Kenneth Jr., Virginia Beach, Va. (M.C. of Virginia 1958)
Wassel, Harry Donald, New Orleans, La. (U. of Ottawa 1959)
Watson, Paul Virgel, Key West, Fla. (West Virginia U. 1964)
Westmark, David Oliver, Norfolk, Va. (U. of Florida 1964)
Whitis, Peter Roome, Gainesville, Fla. (U. of Florida 1960)
Wiggins, Joe Willis, Gainesville, Fla. (Johns Hopkins 1950)
Willett, Bernard Leroy, Lynn, Mass. (Tufts 1948)
Woody, Emma McIver (F), Orlando, Fla. (N.Y.U. 1963)
Young, Francis O'Neil, Miami, Fla. (U. of Glasgow 1947)
Zemel, Norman Paul, Lakewood, N.J. (Jefferson M.C. 1965)
Ziemba, Richard Anthony, Tustin, Calif. (Wayne State U. 1960)
Zimmer, Alan Edward, Mamaroneck, N.Y. (U. of Geneva 1956)



Togetherness....

...can be rough when epidemics of nausea and vomiting strike a family. Emetrol offers prompt, safe relief. It is free from toxicity[1] or side effects[2,3] and will not mask symptoms of serious organic disorders.

1. Bradley, J. E., *et al.*: J. Pediat. *38*:41 (Jan.) 1951.
2. Bradley, J. E.: Mod. Med. *20*:71 (Oct. 15) 1952.
3. Crunden, A. B., Jr., and Davis, W. A.: Am. J. Obst. & Gynec. *65*:311 (Feb.) 1953.



ROBER

WILLIAM H. RORER, INC.
Fort Washington, Pa.

Emetrol®
phosphorated carbohydrate solution
emesis control

Classified Advertisements

Advertising rates for this column are $5.00 per insertion for ads of 25 words or less. Add 20¢ for each additional word.

physicians wanted

General Practitioners

GENERAL PRACTITIONER WANTED (AAGP) for north Florida college town. Vacancy in busy two man practice in medicine, pediatrics and obstetrics. Immediate excellent income with eventual full partnership. Write C-614, P.O. Box 2411, Jacksonville, Fla. 32203.

EXCELLENT OPPORTUNITY for general practitioner in community of 15,000; central Florida; 76 bed JCAH hospital. Write or call collect R. C. Thompson, Bartow Memorial Hospital, Bartow, Fla.

WANTED: General practitioner associate, leading to partnership. Practice approximately one half industrial. Ideal central Florida community. Send detailed resume to C-716, P.O. Box 2411, Jacksonville, Fla. 32203.

WANTED: General Practitioner to join group for partnership in Miami area. Military obligation fulfilled. Florida license required. Write Medical Business Consultants, 9999 N.E. 2nd Avenue, Miami Shores, Fla. 33138.

GENERAL PRACTITIONER WANTED: Partner, semi-rural practice in central Florida area undergoing rapid industrial expansion. Spacious, fully equipped office including x-ray. Good income without working yourself to death. Write C-749, P.O. Box 2411, Jacksonville, Fla. 32203.

WANTED: General practitioner to join group for partnership in Miami area. Must have Florida license and fulfilled military obligation. Write Medical Business Consultants, 9999 N.E. 2nd Ave., Miami Shores, Fla. 33138.

WANTED: General Practitioner to associate with established young doctor. Also office space available for rent. Contact G. L. Ehringer, M.D., 1184 Oceanshore Blvd., Ormond Beach, Fla. 32074.

Locum Tenens

PHYSICIAN wanted to take over general practice for months of July and August. Could earn to $7,500. during this period. Possibility of permanent association. No surgery. Send curriculum vitae first letter. Write C-744, P.O. Box 2411, Jacksonville, Fla. 32203.

LOCUM TENENS: General Practitioner needed for summer months in Florida West coast area. Write C-748, P.O. Box 2411, Jacksonville, Fla. 32203.

Specialists

PEDIATRICIAN: Board eligible, to join two board pediatricians in rapidly growing Southeastern Florida coastal college town. Early partnership anticipated, excellent hospitals nearby. Send references and curriculum vitae in first letter. C-719, P.O. Box 2411, Jacksonville, Fla. 32203.

WANTED IMMEDIATELY: Pediatrician, internist to join surgeon in a group. Best references required. Salary of $25,000. Write C-728, P.O. Box 2411, Jacksonville, Fla. 32203.

OBSTETRICIAN-GYNECOLOGIST WANTED: To associate with two man group. Large established practice in Miami; Board eligible or certified; prefer under age 35. Write P.O. Box 384, Miami Shores, Fla. 33153.

WANTED: Board eligible general surgeon under age 40 for association with two general surgeons in greater Miami area. Florida license required. Write C-699, P.O. Box 2411, Jacksonville, Fla. 32203.

PEDIATRICIAN: To join two pediatricians (shared expenses- individual practices). Must be board qualified, have Florida license, and under age 40. Choice city lower West coast. Write C-729, P.O. Box 2411, Jacksonville, Fla. 32203.

WANTED: Internist to associate with established internist. Board certified or eligible. Salary with early partnership. Busy practice in Ft. Lauderdale, Fla. Write C-739, P.O. Box 2411, Jacksonville, Fla. 32203.

real estate

FOR RENT: Two offices in professional building with other doctors and dentists. Fine location with ample parking. One office 1,000 sq. ft. and the other 1,100. Write Clara M. Hensley, 1724 Drew St., Clearwater, Fla.

AVAILABLE: Proven location for a physician and a dentist. Near Regency Square. 1,350 sq. ft. each unit. Next to a pharmacy. John R. Feldman, Realtor, 112 E. Adams St., Jacksonville 32202. Phone 353-4481 or 384-5993.

FOR SALE, LEASE OR RENT: Commercial building. Excellent for doctor's office. Clearwater-Dunedin line. Make offer. Terms available. Rugo, Box 4, Palm Harbor, Fla. 33563.

AVAILABLE: Otolarynogology office. Immediate occupancy. Ideal location. Excellent opportunity. Capable gross $35,000-$50,000 first year. Owner retiring. Sell or lease. Location excellent for general practice. Write C-746, P.O. Box 2411, Jacksonville, Fla. 32203.

OFFICES AVAILABLE: In beautiful medical building immediately adjacent to new, large private hospital. Leases include partitioning and utilities. Located in Florida's fastest growing area. Write: Medical III, P.O. Box 12008, Plantation, Fla. 33314.

OFFICE SUITE AVAILABLE: To be vacated by Dr. Calvin Cerrato, ENT specialist, because of health. Multiple examining rooms, choice location. For information write to Dr. Pelaia, 2480 E. Commercial Blvd., Ft. Lauderdale 33308.

practices for sale

FOR SALE OR LEASE: Practice of an internist available immediately due to death. Central Miami locale with parking. Excellent facilities available with minimal investment. Low rental. Phone Miami HI 3-9917 or write C-738, P.O. Box 2411, Jacksonville, Fla. 32203.

FOR SALE: Active general practice available on or before June 1. Beach community of 10,000; 50 bed hospital. Office and equipment available. Write C-745, P.O. Box 2411, Jacksonville Fla. 32203.

RETIRING BOARD INTERNIST practice and equipment for sale. Reasonable terms. Established 30 years. Will introduce. Miami Beach, Florida. Write C-743, P.O. Box 2411, Jacksonville, Fla. 32203.

situations wanted

BOARD CERTIFIED OBSTETRICIAN-GYNECOLOGIST seeking location in Florida. Military obligation completed. Age 34. F.A.C.O.G. Contact: R. G. Sharpe, M.D., 802 Saratoga Terrace, Whitman Square, Blackwood, N.J. 08012. Phone: 609-227-6578.

Miscellaneous

WANTED: Pediatrician, internist, general practitioner. Where? Apopka, Fla., 12 miles west of Orlando, Florida. Why? — new hospital, one-half completed, will open fall of '67, area of 38,000-40,000 with presently 3 physicians and one Ob-Gyn specialist. Seeing is believing! Call Apopka, Fla. collect: 889-2232 or write Dr. Maier, Box 155, Apopka, Fla. 32703.

OPPORTUNITY FOR DOCTORS who want to join a multi-specialty group—who want to practice in Florida. A senior surgeon with a large practice and with adequate facilities including laboratory, x-ray and physical therapy departments, desires to confer with board eligible or board certified doctors. The intent is to form a new multi-specialty group practice. Close proximity to a new 500 bed hospital. All inquiries held in strict confidence. Reply to: Jay S. Lombardy & Associates, Management to the Medical Profession, 1177 N.E. 8th St., Delray Beach, Florida 33444.

GENERAL PRACTITIONER OR INTERNIST: Medical offices available. One to four doctors accommodated. Modern structure; utilities and janitor service included. Many medical facilities are found among other tenants. Located in the heart of Winter Park, Fla. Telephone: 644-8217. Write: c/o 240 New England Building, Winter Park 32789.

The Florida Medical Association offers placement assistance through the Physician Placement Service, P. O. Box 2411, Jacksonville 32203. This service is for the use of physicians seeking locations, as well as physicians seeking associates, and is without charge.



The meaningful pause. The energy it gives. The bright little lift. Coca-Cola with its never too sweet taste, refreshes best. Helps people meet the stress of the busy hours. This is why we say **things go better with Coke**
TRADE-MARK ®

HIGHLAND HOSPITAL

ASHEVILLE, NORTH CAROLINA

Founded 1904

A DIVISION OF THE DEPARTMENT OF PSYCHIATRY
OF DUKE UNIVERSITY

Accredited by the Joint Commission on Accreditation and Certified for Medicare

Complete facilities for evaluation of and intensive treatment of psychiatric patients, including individual psychotherapy, group therapy, psychodrama, electro-convulsive therapy, Indoklon convulsive therapy, drugs, social service work with families, family therapy, and an extensive and well organized activities program, including occupational therapy, art therapy, athletic activities and games, recreational activities and outings. The treatment program of each patient is carefully supervised in order that the therapeutic needs of each patient may be realized.

Complete modern facilities with 85 acres of landscaped and wooded grounds in the City of Asheville.

Brochures and information on financial arrangements available
Contact: Mrs. Elizabeth Harkins, ACSW, Coordinator of Admissions

or

Charles W. Neville, Jr., M.D.
Assistant Professor of Psychiatry and Medical Director
Area Code 704 - 253-2761

Index to Advertisers

Abbott Laboratories
Enduron-Enduronyl-Eutonyl-Eutron . . 322a
Erythrocin Sulfas 368-370

Ames Co., Inc.
Dextrostix 319

Anderson Surgical Supply Co. 372

Appalachian Hall 400

Ayerst Laboratories
Mediatric 376-7

Ballast Point Manor 400

Bristol Laboratories
Prostaphlin 386-7
Tetrex F. 326

Brown Pharmaceutical Co.
Cerebro-Nicin 327

Burroughs-Wellcome Co.
Polysporin 371

Coca-Cola 410

Convention Press 372

Dorsey Laboratories
Triaminic 314a

Duvall Home 398

Geigy Pharmaceuticals
Tandearil 374-5

Glenbrook Laboratories
Bayer Aspirin 358

Health-Mor, Inc.
Filter Queen 315-17

Highland Hospital, Inc. 410

Hill Crest Hospital 371

Hynson, Westcott & Dunning, Inc.
BSP Disposable Unit 307

Lakeside Laboratories, Inc.
Cantil 401

Lederle Laboratories
Declomycin 358a
Stresscaps 352
Bamadex 390a, 391

Eli Lilly & Co.
Cordran 328
Ilosone 358a
Tuinal 366a
V-Cillin K 326a

Medical Supply Co. 398

William S. Merrell Co.
Alertonic 384-5

Parke-Davis & Co.
Chloromycetin . . . . . Second Cover

Philips Roxane Laboratories
Geroniazol T T 396-7

Pitman-Moore Co.
Novahistine LP 320-21

P. L. Dodge Memorial Hospital 372

PM of Florida 398

William P. Poythress & Co.
Mudrane 370

Riker
Estomul 388

A. H. Robins, Inc.
Dimetapp Extentabs 326a
Phenaphen 358a

Roche Laboratories
Ganatol 390a
Valium . . . . . Back Cover

J. B. Roerig & Co.
Antivert 390a

Wm. H. Rorer, Inc.
Emetrol 407
Novestrol 392-3
Parepectolin 383

G. D. Searle Co.
Metamucil 358a

Stamas Boats 366a

Stuart Co.
Mylanta 366a

Surgical Supply Co. 400

Syntex Laboratories
Norinyl 402-3
Synalar 310-13

Tucker Hospital, Inc. 327

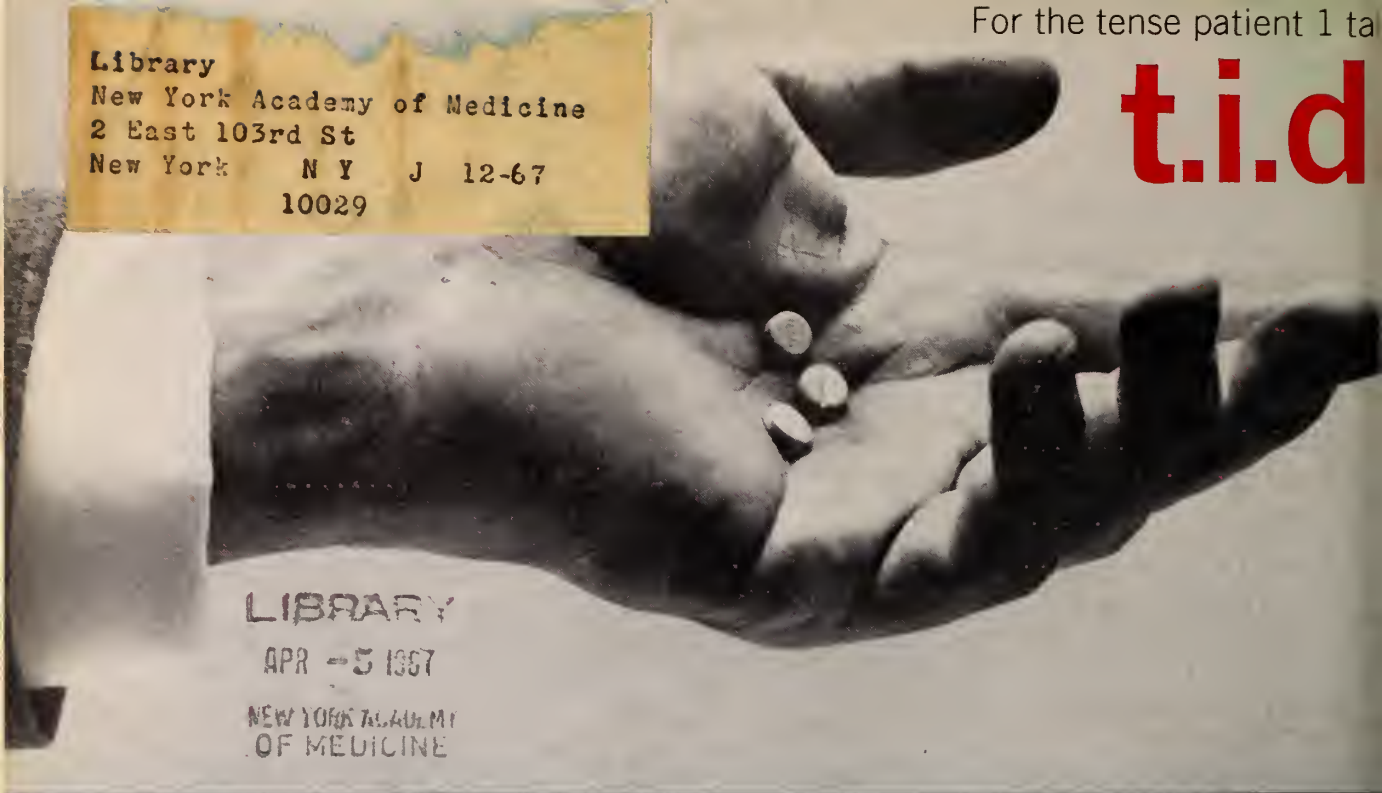
Valentine Co., Inc. 374

Winthrop Laboratories
Neggram 308

Wyeth Laboratories
Equagesic 394-5
Serax 356-57
Pen Vee K 367

Wynn Pharmaceuticals, Inc.
Aminophylline 354
Numa-Dura 318

Library
New York Academy of Medicine
2 East 103rd St
New York N Y J 12-67
10029



For the tense patient 1 ta

t.i.d



who can't slee

h.s

remember th
extra tablet at bedtim

Valium

(diazepam

Roche®

Before prescribing, please consult complete product information, a summary of which follows:
Contraindications: Infants, patients with history of convulsive disorders or glaucoma.
Warning: Not of value in the treatment of psychotic patients, and should not be employed in lieu of appropriate treatment.
Precautions: Limit dosage to smallest effective amount in elderly patients (not more than 1 mg, one or two times daily) to preclude ataxia or oversedation. Advise patients against possibly hazardous procedures until correct maintenance dosage is established; driving during therapy not recommended. In general, concurrent use with other psychotropic agents is not recommended. Warn patients of possible combined effects with alcohol. Safe use in pregnancy not established. Observe usual precautions in impaired renal or hepatic function and in patients who may be suicidal; periodic blood counts and liver function tests advisable in long-term use. Cease therapy gradually.

Side Effects: Side effects (usually dose-related) are fatigue, drowsiness and ataxia. Also reported: mild nausea, dizziness, blurred vision, diplopia, headache, incontinence, slurred speech, tremor and skin rash; paradoxical reactions (excitement, depression, stimulation, sleep disturbances, hallucinations); changes in EEG patterns. Abrupt cessation after prolonged overdosage may produce withdrawal symptoms similar to those seen with barbiturates, meprobamate and chlordiazepoxide HCl.
Dosage—Adults: Mild to moderate psychoneurotic reactions, 2 to 5 mg b.i.d. or t.i.d.; severe psychoneurotic reactions, 5 to 10 mg t.i.d. or q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; muscle spasm with cerebral palsy or athetosis, 2 to 10 mg t.i.d. or q.i.d. Geriatric patients: 1 or 2 mg/day initially, increase gradually as needed.
Supplied: Tablets, 2 mg, 5 mg and 10 mg; bottles of 50 for convenience and economy in prescribing.

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche I
Nutley, N.J. 07110

MAY, 1967
Volume 54
Number 5

The JOURNAL of the Florida Medical Association

Medical Student Research Number

OFFICIAL PUBLICATION OF THE FLORIDA MEDICAL ASSOCIATION

PLAN TO ATTEND
93rd Annual Meeting
May 11-14, 1967
Americana Hotel
Bal Harbour



Whether the allergen is greenish or garish, unseen or unknown, your patient can get symptomatic relief with BENADRYL—the potent antihistamine with antispasmodic action. *INDICATIONS:* Antihistaminic, antispasmodic, antitussive, and antiemetic therapy. *PRECAUTIONS:* Persons who have become drowsy on this or other antihistamine-containing drugs, or whose tolerance is not known, should not drive vehicles or engage in other activities requiring keen response while using this product. Hypnotics, sedatives, or tranquilizers if used with diphenhydramine hydrochloride should be prescribed with caution because of possible additive effect. Diphenhydramine has an atropine-like action which should be considered when prescribing diphenhydramine hydrochloride. *ADVERSE REACTIONS:* Side effects are generally mild and may affect the nervous, gastrointestinal, and cardiovascular systems. Drowsiness, dizziness, dryness of the mouth, nausea, nervousness, palpitation, blurring of vision, vertigo, headache, muscular aching, thickening of bronchial secretions, restlessness, and insomnia have been reported. Allergic reactions may occur.

BENADRYL is available in Kapseals® of 50 mg. and Capsules of 25 mg. 00867

The pink capsule with the white band is a trademark of Parke, Davis & Company.

PARKE-DAVIS

Lutrexin®

HW&D BRAND OF LUTUTRIN

3000 UNIT TABLETS

IN THE TREATMENT OF FUNCTIONAL DYSMENORRHEA AND SELECTED CASES OF PREMATURE LABOR AND 2ND AND 3RD TRIMESTER THREATENED ABORTION

In controlling abnormal uterine activity, LUTREXIN, the non-steroid "uterine relaxing factor" has been found to be the drug of choice by many clinicians.

No side effects have been reported, even when massive doses (25 tablets per day) were administered.

Literature on indications and dosage available on request.

Supplied in bottles of twenty-five 3,000 unit tablets.

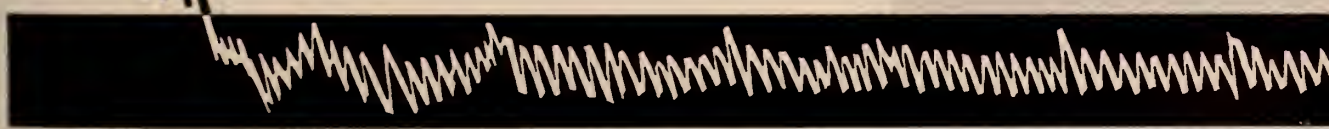
HYNSON, WESTCOTT & DUNNING, INC.

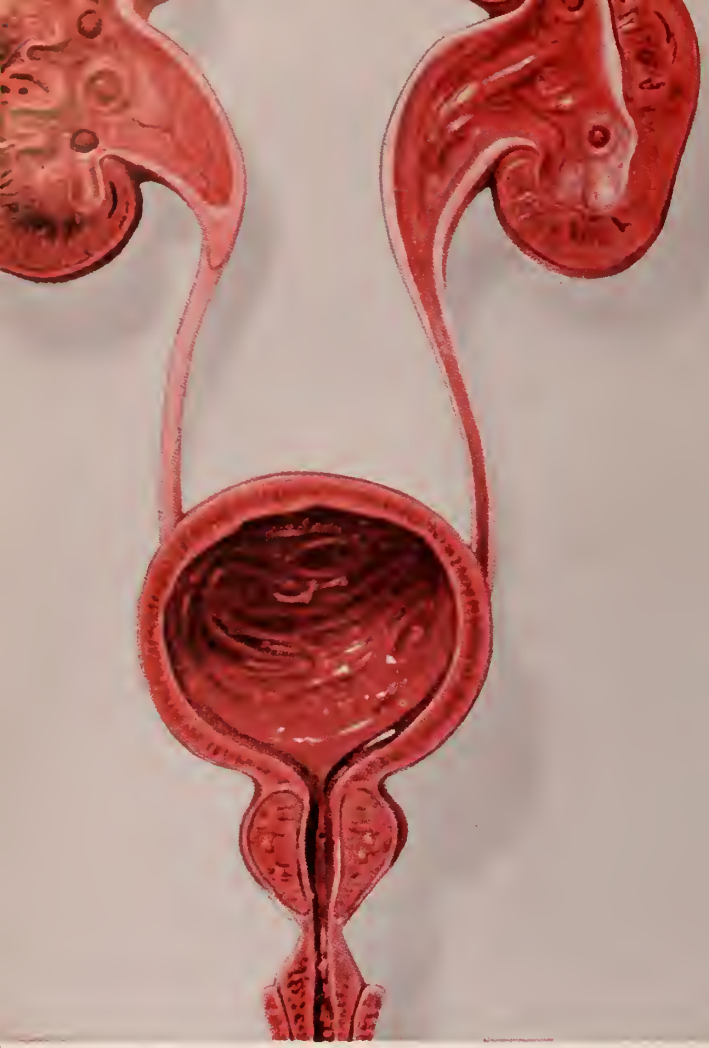
BALTIMORE, MARYLAND 21201

(LTR22)



in vivo measurement of LUTREXIN (Lututrin) on contracting uterine muscle





Diagnosis:

cystitis?
pyelonephritis?
pyelitis?
urethritis?
prostatitis?

in any case,
usually gram-negative*

Therapy:

two 500 mg. Caplets® q.i.
(initial adult dose)

Indications: Urinary tract infections caused by gram-negative and some gram-positive organisms.

Side effects: Mainly mild, transient gastrointestinal disturbances; in occasional instances, drowsiness, fatigue, pruritus, rash, urticaria, mild eosinophilia, reversible subjective visual disturbances (overbrightness of lights, change in visual color perception, difficulty in focusing, decrease in visual acuity and double vision), and reversible photosensitivity reactions. Marked overdosage, coupled with certain predisposing factors, has produced brief convulsions in a few patients.

Precautions: As with all new drugs, blood and liver function tests are advisable during prolonged treatment. **Pending further experience, like most chemotherapeutic agents, this drug should not be given in the first trimester of pregnancy. It must be used cautiously in patients with liver disease or severe impairment of kidney function.** Because photosensitivity reactions have occurred in a small number of cases, patients should be cautioned to avoid unnecessary exposure to direct sunlight while receiving NegGram, and if a reaction occurs, therapy should be discontinued. The dosage recommended for adults and children should not arbitrarily be doubled unless under the careful supervision of a physician. Bacterial resistance may develop.

When testing the urine for glucose in patients receiving NegGram, Clinistix® Reagent Strips or Tes-Tape® should be used since other reagents give a false-positive reaction.

Dosage: Adults: Four Gm. daily by mouth (2 Caplets® of 500 mg. four times daily) for one to two weeks. Thereafter, if prolonged treatment is indicated, the dosage may be reduced to two Gm. daily. Children may be given approximately *25 mg. per pound* of body weight per day, administered in divided doses. The dosage recommended above for adults and children should not arbitrarily be doubled unless under the careful supervision of a physician. Until further experience is gained, infants under 1 month should not be treated with the drug.

How supplied: Buff-colored, scored Caplets® **of 500 mg. for adults,** conveniently available in bottles of 56 (sufficient for one full week of therapy) and in bottles of 1000. **250 mg. for children,** available in bottles of 56 and 1000.

References: (1) Based on 23 clinical papers, 1512 cases. Bibliography on request. (2) Bush, I. M., Orkin, L. A., and Winter, J. W., in Sylvester, J. C.: Antimicrobial Agents and Chemotherapy—1964, Ann Arbor, American Society for Microbiology, 1965, p. 722.

Winthrop

Winthrop Laboratories, New York, N. Y. 10016

NegGram

Brand of

nalidixic acid

a specific anti-gram-negative

eradicates most urinary tract infections...

- Low incidence of untoward effects; no fungal overgrowth, crystalluria, ototoxic or nephrotoxic effects have been observed.
- "Excellent" or "good" response reported *in more than 2 out of 3* patients with either chronic or acute gram-negative infections.[1]

*As many as 9 out of 10 urinary tract infections are now caused by gram-negative organisms: E. coli, Klebsiella, Aerobacter, Proteus, Paracolon or Pseudomonas[2]... However, infections of the urethra and prostate caused by non-gonococcal gram-negative organisms are believed to be less prevalent.

The JOURNAL
of the Florida Medical Association

Volume 54, Number 5, May 1967

THAD MOSELEY, M.D.
Editor

Assistant Editors

JOHN M. PACKARD, M.D.
OSCAR W. FREEMAN, M.D.

Assistant Editor from the Board of Governors
JACK Q. CLEVELAND, M.D.

W. HAROLD PARHAM
Managing Editor

EUGENE L. NIXON
Associate Managing Editor

LOUISE RADER
Assistant Managing Editor

EDITH B. HILL
Editorial Consultant

Published monthly at Jacksonville, Florida. Price $7.00 a year: single numbers, 70 cents. Address Journal of Florida Medical Association, P.O. Box 2411, 735 Riverside Ave., Jacksonville, Fla. 32203. Telephone (904) 356-1571. Accepted for mailing at special rate of postage provided for in Section 1103, Act of Congress of October 3, 1917; authorized October 16, 1918. Entered as second class matter under Act of Congress of March 3, 1879, at the post office at Jacksonville, Florida, October 23, 1924.

THIS ISSUE

Scientific Section

Student Research Papers, University of Miami School of Medicine
Introduction by Hayden C. Nicholson, M.D., Vice President for Medical Affairs and Dean, University of Miami School of Medicine ... 433
Role of the Spleen in the Immune Response of Teleosts and Elasmobranchs, Frank A. Ferren Jr. ... 434
The Subclavian Steal Syndrome, Myron M. Persoff ... 438
Combined Lung-Liver Radioisotope Scan in the Diagnosis of Subphrenic Abscess, W. M. Whitley ... 442
Fibrinolysis—Clinical Implications, James P. Noble ... 444
Types of Idiopathic Thrombocytopenic Purpura and Methods of Treatment, John A. Pinkston ... 448
Student Research Papers, University of Florida College of Medicine
Introduction by Emanuel Suter, M.D., Dean, University of Florida College of Medicine ... 451
Organic Phosphate Insecticides as Teratogens in the Rat, Patrick K. Dobbins ... 452
Management of Patients With a Positive Serologic Screening Test for Syphilis, Mary Elizabeth Seay ... 457
Unusual Dermatoglyphic Patterns Associated With Abnormal Chromosome Karyotypes, Leslie C. Ellwood ... 460
Recovery of Biologically Active Viral Ribonucleic Acid From Rat Brain After Intraperitoneal Injection, Michael T. B. Dennis ... 465
Problems in Initiating Office Bacteriology, Jack W. Bartlett ... 469

Special Article

Relative Value Studies, Robert E. Zellner, M.D. ... 485

Departments

President's Page ... 421
The Medical Detective ... 425
National and Regional Meetings in Florida ... 426
Association News ... 475
Books Received ... 488
Public Health Topics ... 498
News ... 503
Deaths ... 510
Letters ... 516
Meetings ... 516
Others Are Saying ... 521
Classified ... 524

Miscellaneous

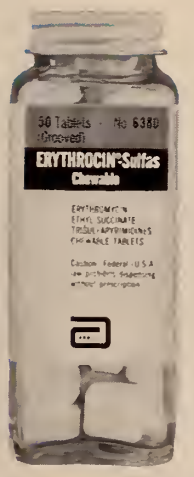
Florida Medical Association Officers and Council Chairmen ... 526
Information for Authors ... 526
Index to Advertisers ... 527

Owned and published by the Florida Medical Association, Inc. The Journal is not responsible for the opinions and statements of its contributors.



Perhaps there have been times when you wanted to prescribe erythromycin and triple sulfas for little patients. Now you can—with a choice of two new fine-tasting pediatric forms.

New–Two Pediatric Forms of Erythromycin and Triple Sulfas





ERYTHROCIN®-SULFAS Chewable (Erythromycin ethyl succinate-trisulfapyrimidines chewable tablet)

In clinical trials[1,2], this orange-flavored tablet was given to 55 patients, aged four months to 18 years.

Diagnoses (multiple in some cases) represented a cross section of bacterial infections commonly seen in pediatric office practice.

Therapy was given from three to 12 days, with an average of six days.

Of the 55 patients, 30 were reported cured within 72 hours, while 22 showed partial recovery within the same time, and subsequent clinical cure.

A clinical cure rate of 94.5%

ERYTHROCIN®-SULFAS Granules (Erythromycin ethyl succinate-trisulfapyrimidines granules for oral suspension)

87 patients were treated[1,2]—all children, ages four months to 15 years.

The diagnoses were multiple in some cases and were chiefly bacterial infections of the respiratory tract.

Dosage was maintained from three to 10 days; average treatment was five days. All of the ill children accepted the orange-flavored suspension favorably.

53 were clinically cured within 72 hours, while 32 showed partial relief within the same time, and subsequent clinical cure.

701358

A clinical cure rate of 97.7%

Case Reports on File, Dept. Clin. Development, Abbott Laboratories.
Polley, R.F.L., Use of Erythromycin-Sulfas in Office Practice, Western Med., 7:177, July, 1966.

ABBOTT

Brief Summary on next page

ERYTHROCIN®-SULFAS
Brief Summary

Contraindications: Known sensitivity to erythromycin or sulfonamides. Because of the possibility of kernicterus with sulfonamides, do not use in pregnancy at term, premature or newborn infants.

Warnings: As with other forms of sulfonamide therapy, carefully evaluate patients with liver or kidney damage, urinary obstruction, or blood dyscrasia. Deaths have been reported from hypersensitivity reactions and blood dyscrasias following use of sulfonamides. Perform blood counts and liver and kidney function tests if used repeatedly at close intervals or for long periods.

Precautions, Side Effects: Occasionally mild abdominal discomfort, nausea or vomiting may occur with erythromycin, generally controlled by reduction of dosage. Mild allergic reactions (such as urticaria and other skin rashes) may occur. Serious allergic reactions have been extremely infrequent. Use sulfonamides with caution in patients with a history of allergy. Assure adequate fluid intake to prevent crystalluria and institute alkali therapy if indicated. If overgrowth of nonsusceptible organisms occurs, withdraw the drug and institute appropriate treatment. If a patient should show signs of hypersensitivity, appropriate countermeasures (e.g. epinephrine, steriods, etc.) should be administered and the drug withdrawn.

Adverse Reactions: Sulfonamide therapy may be associated with headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, skin rash, injection of the conjunctiva and sclera, petechiae, purpura, hematuria and crystalluria.

Side effects due to erythromycin are infrequent, but occasional abdominal discomfort, nausea, or vomiting, urticaria and other skin rashes may occur.

Supplied: The Granules for Oral Suspension come in bottles of 60 ml. and 150 ml. The Chewable tablets are in bottles of 50. Each 5-ml. teaspoonful of reconstituted Granules or each Chewable tablet provides erythromycin ethyl succinate equivalent to 125 mg. of erythromycin activity and 167 mg. of each of sulfadiazine, sulfamerazine and sulfamethazine.

701358

ABBOTT

mudrane®

for

- EMPHYSEMA
- ASTHMA
- CHRONIC BRONCHITIS
- BRONCHIECTASIS

The fast-disintegrating uncoated tablet gives relief in 15 minutes

Each tablet contains:

Potassium Iodide	195 mg.
Aminophylline	130 mg.
Phenobarbital, Caution: May be habit forming...	21 mg.
Ephedrine HCl	16 mg.

FEDERAL LAW PROHIBITS
DISPENSING WITHOUT PRESCRIPTION

Precautions: Usual for aminophylline-ephedrine-phenobarbital. Iodides may cause nausea, long use may cause goiter. Discontinue if symptoms of iodism develop.

Iodide contraindications: tuberculosis, pregnancy.

DOSAGE

One tablet, with full glass of water, 3 or 4 times daily.

Dispensed in bottles of 100 and 1000 tablets.

MUDRANE GG—Formula, dosage and package identical to Mudrane—*except*—100 mg. glyceryl guaiacolate replaces the potassium iodide. The value of Mudrane cannot be enjoyed by a small group in which K.I. is contraindicated. Mudrane GG is prepared for this group.

MUDRANE GG ELIXIR—Four 5 cc teaspoonfuls is equivalent to one Mudrane GG tablet. Dosage adjusted to age and weight of child. Mudrane GG Elixir is for pediatric patients and those who think they cannot swallow tablets. Dispensed in pint and half gallon bottles.

WM. P. POYTHRESS & CO., INC.
RICHMOND, VIRGINIA 23217
Manufacturers of ethical pharmaceuticals since 1856



President's Page

It Was A Very Good Year

This is my last President's Page and I must tell you, my friends and colleagues, what a privilege and high honor it has been to have served as your President. I have enjoyed every moment of this past year. It has been a unique and proud experience. I have had the opportunity to work with and enjoy friendships and pleasant associations with many fine, dedicated physicians and others who share mutual desires to serve our profession anywhere, anytime and to the fullest of their abilities and energies. To be associated with such wonderful people has made me very proud and has been a most rewarding experience.

The Florida Medical Association is one of the best state associations in every way. We have knowledgeable members who know of what they speak. We have been complimented on this in many places, on both state and national levels. Our officers, Board of Governors, council chairmen, committee chairmen and committee members are superb in their interests, activities and accomplishments. This likewise pertains to our Journal and its staff. Our county societies are in the main active and vigorous. Our meetings are exceptional and productive.

The main reason that all of these statements are factual is because of our wonderful administrative staff under the direction and genius of Harold Parham. It is such a pleasure to be closely associated with all of these fine people. They give all that is asked of them, and more. I cannot praise them enough. I take this opportunity to thank them for their work and devotion, not only during regular hours but on many weekends and odd hours. To Harold, I say we have the finest Executive Director of them all. To our wives (and husbands) I say thank you for sharing your spouses with FMA. To my wife and family I say thank you for your understanding, encouragement, indulgence and love. To our next President, Dean Steward, I wish a most successful year in every way.

Thank you again for this highest of honors. I hope that I have deserved your trust and confidence. Yes, it was a very good year.

George S. Palmer



See You At The Annual Meeting

May 11-14, 1967

Americana Hotel

Bal Harbour



Tandearil®
oxyphenbutazone

Tandearil in Painful Shoulder

Therapeutic Effects: Stiffness and pain may diminish within 2 days, and full mobility may be restored within a week. These effects are obtained with oxyphenbutazone alone or combined with physiotherapy or local hormonal injections. The drug is usually well tolerated and does not affect pituitary-adrenal function or immune response.

Contraindications: Edema; danger of cardiac decompensation; history or symptoms of peptic ulcer; renal, hepatic or cardiac damage; history of drug allergy; history of blood dyscrasia. The drug should not be given when the patient is senile or when other potent drugs are given concurrently.

Warning: If coumarin-type anticoagulants are given simultaneously, watch for excessive increase in prothrombin time. Pyrazole compounds may potentiate the pharmacologic action of sulfonylurea, sulfonamide-type agents and insulin. Carefully observe patients receiving such therapy. Use with great caution in the first trimester of pregnancy.

Precautions: Obtain a detailed history and a complete physical and laboratory examination, including a blood count. The patient should be closely supervised and should be warned to report immediately fever, sore throat, or mouth lesions (symptoms of blood dyscrasia); sudden weight gain (water retention); skin reactions; black or tarry stools or other evidence of intestinal hemorrhage. Make regular blood counts. Discontinue the drug and institute countermeasures if the white count changes significantly, granulocytes decrease, or immature forms appear. Use greater care in the elderly and in hypertensives.

Adverse Reactions: The most common are nausea, edema and drug rash. The drug has been associated with peptic ulcer and may reactivate a latent peptic ulcer. Infrequently, agranulocytosis, or a generalized allergic reaction may occur and require withdrawal of medication. Stomatitis, salivary gland enlargement, vomiting, vertigo and languor may occur. Leukemia and leukemoid reactions have been reported but cannot definitely be attributed to the drug. Thrombocytopenic purpura and aplastic anemia may occur. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hyperglycemia, hepatitis, jaundice, and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently. Moderate lowering of the red cell count due to hemodilution may occur.

Dosage in Painful Shoulder: 600 mg. daily in divided doses for 2 to 3 days; 300 mg. daily thereafter. Usual duration of therapy: 2 to 7 days.

Availability: Tablets of 100 mg. 6562-VI(B)R

For complete details, please refer to full prescribing information.

Geigy Pharmaceuticals
Division of Geigy Chemical Corporation
Ardsley, New York

Geigy

Tandearil® oxyphenbutazone helps painful shoulders move again



3 out of 4 painful shoulder patients responded well

84.2% of 127 patients

81% of 48 patients

Please see adjoining page for brief prescribing summary

TA-5094PC

Sperling, I L Applied Therap 6 117, 1964
Rosenbaum, E E and Schwarz, G R Northwest Med. 61:927, 1962

TA-47

Why these 7 patients with moderate to severe anxiety may respond better to Mellaril



1. The agitated patient.
Anxiety—particularly that beyond th range of minor tranquilizers—fre quently is expressed as gross moto restlessness, fidgetiness and purpose less movements, and may erupt int aggressive behavior. Mellaril is al most a specific for those patient whose anxiety follows such a pattern



The psychosomatic patient.

family physician is rarely given diagnostic luxury of a classic, book "anxiety state." Most often nust probe for anxiety masked by nctional disorder—or which exac- ates a somatic problem. Double- d evaluations have demonstrated Mellaril can be a significant ad- t in the treatment of such patients.



The patient under uational stress.

laril helps the patient deal with sses of everyday life. Nonhabitu- g, it can be given for extended pe- s of time. It does not "separate" patient from practical problems pressures, does not induce eupho- r a fuzziness which can compro- se the ability to cope with reali- ies. Rather, it helps the patient move more competently in his daily world by eliminating use- less tension, by allowing him to conserve emotional resources and energies, and to direct them against the problems really worth worrying about.



4. The menopausal patient.

The woman who sees change of life as the end of useful life requires support from both family and family physician. Whether the psychological impact of menopause is directly related to hormonal changes, or merely coincidental, is debatable, but estrogenic therapy is frequently inadequate. Mellaril is a useful aid for these patients and, alone, or in combination with reduced estrogen dosage, will help ease the menopausal misery.



5. The previously hospitalized psychiatric patient.

Such a patient may still require the type of medication he has been accustomed to, but because he is no longer in a controlled setting the acceptable level of adverse reactions must be lower. In such circumstances Mellaril is perhaps the drug of choice.



6. The agitated geriatric.

Tranquilizer therapy in the elderly patient always involves special (or at least accentuated) problems: the possibility of drug-induced ataxia, hypotension or depression, for example, assumes an additional significance. These reactions have rarely been observed in geriatric patients treated with Mellaril.



7. The constantly returning patient.

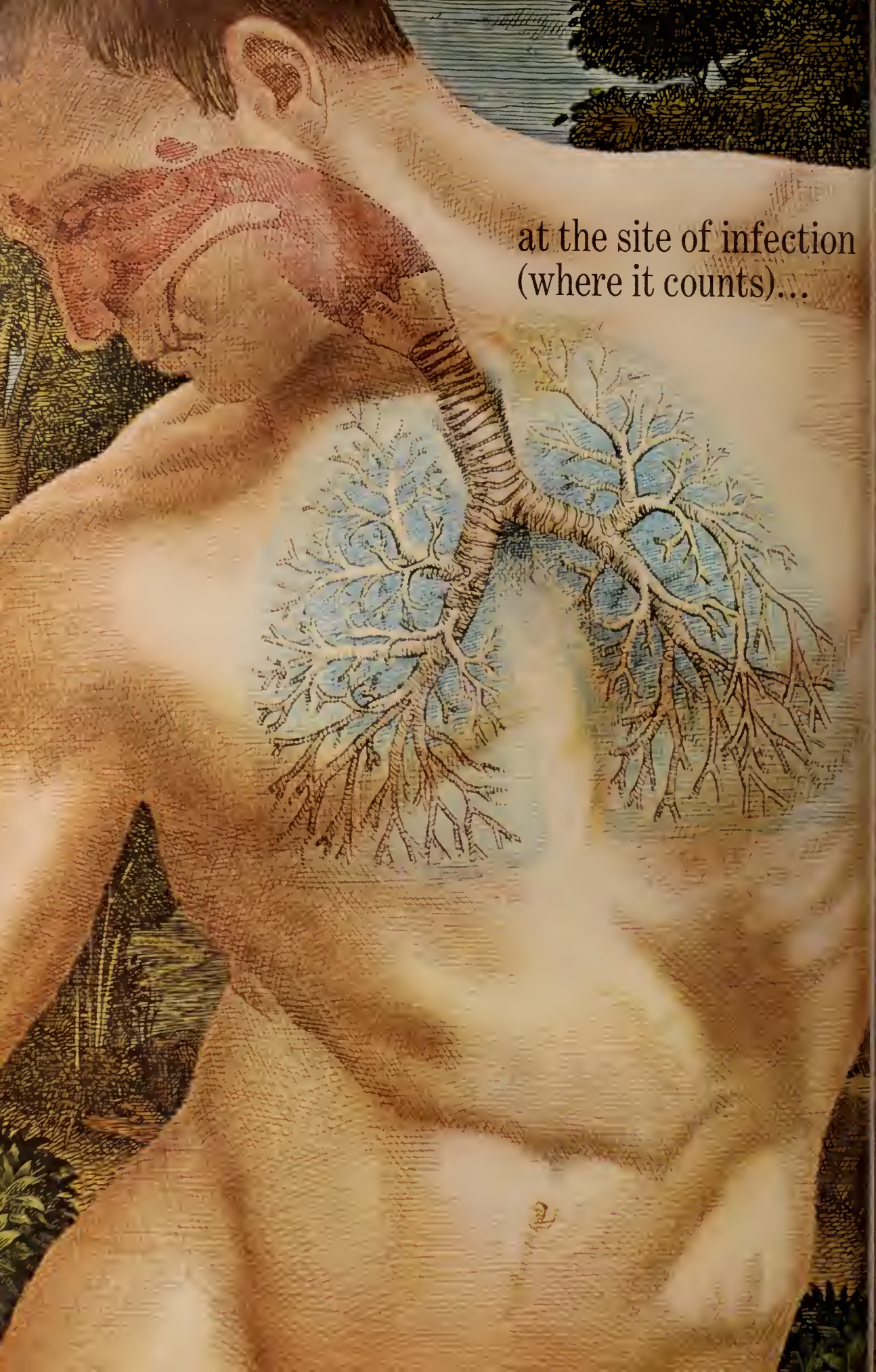
The anxiety patient who has not responded to a minor tranquilizer is not very likely to benefit from your minor tranquilizer of second choice. A major tranquilizer, such as Mellaril, may be indicated in such patients.

Contraindications: Severely depressed or comatose states from any cause, and in association with or following MAO inhibitors; severe hypertensive or hypotensive heart disease.
Precautions: Hypersensitivity reactions (e.g., leukopenia, agranulocytosis) and convulsive seizures are infrequent. Pigmentary retinopathy has been observed where doses in excess of those recommended were used for long periods of time. May potentiate central nervous system depressants, atropine, and phosphorus insecticides. Where complete mental alertness is required, administer the drug cautiously and increase dosage gradually. In addition, orthostatic hypotension (especially in female patients) has been observed. Epinephrine should be avoided in treatment of drug-induced hypotension.
Side Effects: Pseudoparkinsonism and other extrapyramidal disorders are infrequent; drowsiness, especially in high doses early in treatment, may occur; nocturnal confusion, dryness of the mouth, nasal stuffiness, headache, peripheral edema, lactation, galactorrhea, and inhibition of ejaculation are noted on occasion; photosensitivity and other allergic skin reactions may occur but are extremely rare.
Before prescribing, see package insert for full product information.

in moderate to severe anxiety, 25 mg. t.i.d.

Mellaril®
(thioridazine)

SANDOZ


at the site of infection
(where it counts)...

Ilosone® provides more antibacterial activity than any other oral erythromycin

Acid stable, better absorbed... Ilosone produces faster, higher, more prolonged blood levels, even in the presence of food[1-3]

Because it is the most active form of oral erythromycin, Ilosone can help assure consistently greater antibacterial activity at the site of infection. Ilosone produces peak antibacterial blood levels two to four times those of other erythromycin preparations.[1,2] Not only are these levels attained earlier, but they are maintained for much longer periods. Even the presence of food does not seem to affect the activity of Ilosone.[1,3]

In the treatment of patients with bacterial infections susceptible to erythromycin, Ilosone has compiled an excellent therapeutic record. Since it exerts its greatest activity against gram-positive organisms, it is particularly useful in common respiratory and soft-tissue bacterial infections. Ilosone kills—not merely inhibits—streptococci, pneumococci, and more strains of staphylococci than any other macrolide antibiotic. This bactericidal action, coupled with the high antibacterial levels attained, makes Ilosone especially valuable in patients with low host resistance, such as infants, debilitated individuals, and diabetics.

Ilosone has shown no cross-resistance with penicillin and may be effective against organisms that have become resistant to that agent. Despite its high antibacterial activity, Ilosone has demonstrated a low incidence of side reactions. Blood dyscrasias, ototoxicity, and tooth staining have not been observed. Infrequent cases of drug idiosyncrasy, manifested by a cholestatic jaundice, have occurred, but there have been no known definite residual effects.

700121

Ilosone®
Erythromycin Estolate

Lilly

(See next page for prescribing information.)

Ilosone®/ the most active oral form of erythromycin

Description: Ilosone is the most active form of oral erythromycin that has been developed. Because it is stable in acid, well absorbed, and excreted in lesser amounts in the bile, it provides faster, higher, and longer-lasting levels of antibacterial activity (ABA) in the serum, even when taken with food, than do comparable doses of erythromycin.

Indications: Ilosone is indicated in infections caused by microorganisms sensitive to its action (especially staphylococci, hemolytic streptococci, and pneumococci). The drug is therefore useful in a high proportion of bacterial diseases encountered in clinical practice and particularly in the treatment of bacterial infections of the upper and lower respiratory tract and soft tissues.

In the treatment of acute bacterial pharyngitis and tonsillitis, this antibiotic has promptly eradicated the bacteria (streptococci) and has produced a parallel prompt clinical improvement. There have been no group A beta-hemolytic streptococci resistant to this preparation. In beta-hemolytic streptococcus infections, treatment should be maintained for ten days to prevent the development of rheumatic fever or glomerulonephritis.

Erythromycin estolate has proved to be very effective in pneumococcus pneumonia and in acute bronchitis with pneumococci on culture. Bronchopneumonia and otitis media in children have responded well to its use.

The antibiotic has been used very successfully in staphylococcus infections. Good therapeutic results have been obtained in soft-tissue infections, abscesses, cellulitis, carbuncles, wound infections, and furunculosis.

In serious staphylococcus infections, erythromycin preparations should be used only in combination therapy with other antimicrobial agents. As is the case with any treatment regimen used in these severe conditions, surgical procedures should be performed when indicated, and large dosages of the antimicrobial agents should be employed. In this fashion, Ilosone has been effective in staphylococcus pneumonia, osteomyelitis, septicemia, empyema, and meningitis.

Multiple 500-mg. doses of the drug have been useful in gonorrhea and syphilis. Since penicillin is the drug of choice for the treatment of syphilis and gonorrhea, erythromycin estolate should be employed for these infections only in patients with a history of penicillin allergy. Also, other infections due to susceptible bacteria in patients known to be hypersensitive to penicillin or other antibiotics may be considered for treatment with Ilosone.

Contraindications: Ilosone is contraindicated in patients with a known history of sensitivity to this drug and in those with preexisting liver disease or dysfunction.

Side-Effects: Data obtained from seven years' use of propionyl erythromycin ester and erythromycin estolate (Ilosone) indicate that hepatic dysfunction with or without clinical jaundice may occur during or following courses of therapy with the drug.

Changes in liver function tests in such cases have been indicative of intrahepatic cholestasis. The symptoms appear to be the result of a form of sensitization. The initial symptoms have appeared in some cases after a few days of treatment but generally have followed one or two weeks of continuous therapy or several courses of the drug. Symptoms reappear promptly if the drug is readministered to sensitive patients, usually within forty-eight hours. Eosinophilia was noted in peripheral blood counts. The findings readily subsided without apparent residual effects when treatment was discontinued. Recovery was delayed in one reported instance. The physician indicated in this case that either drug-induced jaundice or viral hepatitis may have been responsible for the findings.

In one clinical study involving ninety-three patients treated with the antibiotic, three cases of jaundice were observed and an additional eleven cases developed some changes in liver function tests. Three of the patients had abnormal liver function tests a second time on readministration of the drug.

Even though it is assumed that not all cases of jaundice have been reported, it seems clear that the number is small compared with the amount of drug that has been used. Reported cases have included persons in whom there had been administered other drugs known to be associated at times with hepatic side-effects and cases in which the presence of viral hepatitis or other disease may have been responsible for the findings. In some of the cases, associated gastro-intestinal symptoms simulated the colic of biliary tract disease. In other instances, clinical symptoms and results of liver function tests resembled findings in extrahepatic obstructive jaundice. It appears that the occurrence of jaundice after administration of Ilosone is infrequent, but further investigations are being made to estimate its incidence more accurately.

In those cases mentioned above in which jaundice appeared to be definitely related to use of the drug, laboratory findings w characterized by increased direct-reacting bilirubin, elev alkaline phosphatase levels, negative or weakly positive ceph flocculation and thymol turbidity tests, elevated serum gluta oxalacetic transaminase levels, peripheral eosinophilia, and mal cholecystograms.

Individual idiosyncrasy seems evident since jaundice has been reported in other patients taking prolonged courses of medication. Patients with chronic infection have been given to 2 Gm. of the drug daily for periods of two to six months, patients with rheumatic fever have taken prophylactic dose 0.5 Gm. daily for two years without difficulty. In one grou 144 patients who received the drug daily for two years, no j dice was noted. It was of interest that members of six of t patients' families, who were not taking the drug, had epis of jaundice during the study period.

Transaminase and serum alkaline phosphatase levels w determined in a group of fifty-four adults and children who 250 mg. of Ilosone daily for an average of sixteen month rheumatic fever prophylaxis. The results were compared those of a similar group of forty-four patients who received icillin. There were no cases of jaundice in either group. Eleva of SGPT and serum alkaline phosphatase levels during the co of treatment was observed in one patient treated with Ilo and in two patients treated with penicillin. Seven other pati in the group receiving Ilosone and four others in the penic group showed elevations in one of the tests at some time du administration of the drugs.

Very satisfactory therapeutic results, without toxicity, w reported in 102 pediatric patients who received short-term (day) courses of Ilosone in the treatment of streptococcus in tions. Results of liver function tests in these patients were parable to those in a similar control group who had rece penicillin.

Gastro-intestinal disturbances not associated with hepati fects are observed in a small proportion of individuals as a r of a local stimulating effect of the medication on the alimen tract; however, the normal intestinal gram-negative bact flora is not appreciably altered by erythromycin drugs.

Although allergic manifestations are uncommon with the of erythromycin, there have been occasional reports of urtic skin eruptions, and, on rare occasions, anaphylaxis.

Administration and Dosage: Ilosone is administered orally.
Ilosone Pulvules®
Ilosone Chewable Tablets
Ilosone Drops
Ilosone, 125, for Oral Suspension

For infants and for children under twenty-five pounds of weight, the usual dosage is 5 mg. per pound every six hours children twenty-five to fifty pounds, 125 mg. every six h (Tablets Ilosone Chewable should be chewed or crushed swallowed with water.)

For adults and for children over fifty pounds, the usual do of Ilosone is 250 mg. every six hours.

For severe infections, these dosages may be doubled.

When larger doses are indicated, parenteral erythrom therapy should be considered.

In the treatment of syphilis, the recommended total dosa 20 to 30 Gm. given in divided doses for a period of ten to fi days. Close follow-up of the patient is necessary since eryt mycin drugs have not had adequate evaluation in all stag syphilis. Examinations of spinal fluid are recommended as of the follow-up therapy.

For gonorrhea, 500 mg. four times a day for four days recommended. In the treatment of gonorrhea, patients wi suspected lesion of syphilis should have a dark-field examin before receiving antibiotics, and monthly serologic tests sh be made for a period of three months.

How Supplied: Pulvules Ilosone, Capsules, N.F., 125 and 250 (equivalent to base), in bottles of 24 and 100.

Tablets Ilosone Chewable, N.F., 125 mg. (equivalent to b in bottles of 50.

Ilosone Drops, 5 mg. (equivalent to base) per drop, in 1 size packages, with dropper calibrated at 25 and 50 mg.

Ilosone, 125, for Oral Suspension, N.F., 125 mg. (equiv to base) per 5-cc. teaspoonful, in 60 and 150-cc.-size pack

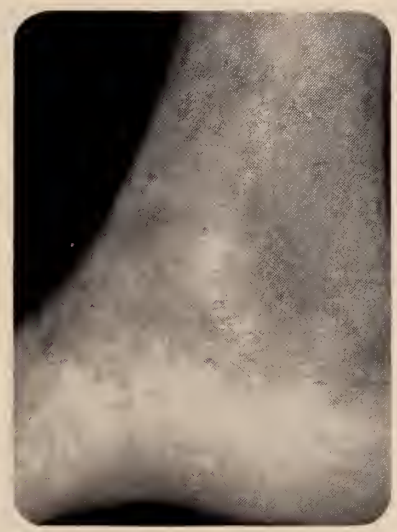
References: 1. Griffith, R. S., and Black, H. R.: Am. J. M. Sc., *247*:69.
2. Griffith, R. S., and Black, H. R.: Antibiotics & Chemother., *12*:398.
3. Hirsch, H. A., Pryles, C. V., and Finland, M.: Am. J. M. Sc., *239*:198, 1

Additional information available to physicians upon request.
Eli Lilly and Company, Indianapolis, Indiana 46206.

Eczema of many years... controlled in two weeks



Before treatment



After treatment—
with ARISTOCORT Topical Ointment 0.1% for two weeks

ARISTOCORT® Triamcinolone Acetonide Topicals have proved exceptionally effective in the control of various forms of eczema: allergic, atopic, nummular, psoriatic, and mycotic.

In most cases responsive to topical ARISTOCORT, the 0.1% concentration is sufficiently potent. The 0.5% concentration provides enhanced topical activity for patients requiring additional potency for proper relief.

Administration and Dosage: Apply sparingly to the affected area 3 or 4 times daily. Some cases of psoriasis may be more effectively treated if the 0.1% Cream or Ointment is applied under an occlusive dressing.

Contraindications: Tuberculosis of the skin, herpes simplex, chicken pox and vaccinia.

Precautions and Side Effects: Do not use in the eyes or in the ear (if drum is perforated). A few individuals react unfavorably under certain conditions. If side effects are encountered, the drug should be discontinued and appropriate measures taken. Use on infected areas should be attended with caution and observation, bearing in mind the potential spreading of infection and the advisability of discontinuing therapy and/or initiating antibacterial measures. Generalized dermatological conditions may require systemic corticosteroid therapy. Steroid therapy, although responsible for remissions of dermatoses, especially of allergic origin cannot be expected to prevent recurrence. The use over extensive body areas, with or without occlusive nonpermeable dressings, may result in systemic absorption. Appropriate precautions should be taken. When occlusive nonpermeable dressings are used, miliaria, folliculitis and pyodermas will sometimes develop. Localized atrophy and striae have been reported with the use of steroids by the occlusive technique. When occlusive nonpermeable dressings are used, the physician should be aware of the hazards of suffocation and flammability. The safety of use on pregnant patients has not been firmly established. Thus, do not use in large amounts or for long periods of time on pregnant patients.

Available in 5 Gm. and 15 Gm. tubes and ½ lb. jars.

PHOTOGRAPHS COURTESY OF M. M. NIERMAN, M.D.

Aristocort® Topical Ointment 0.1% and Cream 0.1%, 0.5%
Triamcinolone Acetonide
Also available in foam form.

Lederle LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York

406-6

DIURESIS



MERCUHYDRIN®
(meralluride injection)

LAKESIDE

Twenty years ago the publication of "A System for the Routine Treatment of the Failing Heart"[1] established a schedule of diuretic therapy as a primary factor in the treatment of acute congestive failure. With emphasis upon daily injections of Mercuhydrin (meralluride injection) until dry weight was obtained, Gold, et al. achieved a 40% increase in improvement, in ⅓ the time, over other methods then current. Today, most medical texts continue to recommend parenteral mercurials in acute congestive failure when prompt diuresis is indicated.

Recently Modell[2] has stated: "The mercurial diuretics are the injectable diuretics of choice since they are the most potent as well as the most dependable. Their toxicity is not an important consideration either by comparison with other potent diuretics or in relation to the seriousness of the conditions in which they provide such excellent relief."

IN BRIEF

Mercuhydrin is indicated in edema of cardiac or hepatic origin and in the nephrotic syndrome; it is contraindicated in acute nephritis and in anuric or oliguric states. *The usual adult dose is one to two cc. daily or every other day until "dry weight" is obtained.* Sensitivity is rare but small initial doses are advised to minimize potential reactions; vertigo, fever, and rash have occurred. Overdosage may produce electrolyte depletion, muscle cramps, and G. I. reactions. Supplied: 1 cc. and 2 cc. ampuls in boxes of 12, 25 and 100; 10 cc. rubber capped, multiple-dose vials (intramuscular or subcutaneous use only) in boxes of 6 and 100.

1. Gold, Harry, *et al.: A System for the Routine Treatment of the Failing Heart,* The American Journal of Medicine, Vol. III, No. 6:665-692 (Dec.) 1956.

2. Modell, Walter: *Drugs of Choice 1966-1967,* p. 97, 1966.

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201

The Medical Detective



Motel Deaths

Deaths in a motel room occur occasionally and are frequently natural deaths. As many of our visitors travel to Florida for their health during the year, it is not unexpected that some should die of their disease.

We must beware of the occasional homicide or suicide which does occur. The latter is not infrequent, especially in the elderly, depressed and lonely persons who choose this means to end their lives.

One rather unusual case involved an elderly couple who were wintering in Florida and had just arrived at a small motel near a large town. They were found dead in the shower of their motel room on a cold Sunday morning. They had dined with friends the night before and that morning they did not respond to the call of the motel owner who became concerned and entered the room. The couple were in their night clothes, apparently dead in the shower stall. The room was cool and the windows were closed. The police were called and found the heater out with the valve in the open position. The bodies were removed to the local hospital for autopsy. The most striking finding was the cherry-red color of the skin especially prominent in the dependent portions of the body. Further examination of the bodies failed to reveal any signs of violence, but there was evidence of recent infarction in the myocardium of the husband. This was consistent with the history of a heart attack eight weeks before. High levels of carbon monoxide were present in the blood of both the husband and wife. Thus we had a cause of death; however, it was important to determine the source of the problem, which proved to be in the defective gas heater when tested by an inspector of the health department.

The most fascinating feature of this story is that one of the police officers mentioned that a death had occurred in the same room several weeks before and upon investigation was shown to have also occurred during a cold spell when the heater was last in use. That victim's death was attributed to a heart attack, but on exhumation of the body a significant level of carbon monoxide was present in the tissues.

Many instances of unexpected exposure to carbon monoxide have occurred in Florida, and this potential hazard is worth mentioning in view of the many infrequently used gas heaters and defective mufflers which may exist and which are not inspected routinely.

WILLIAM G. ECKERT, M.D.

National and Regional Meetings in Florida

May

Association for Research in Ophthalmology,
Clearwater, May 1-2, '67

June

Medical Library Association,
Americana Hotel, Miami Beach, June 11-16, '67

Endocrine Society,
Miami Beach, June 15-17,'67

September

American Congress of Rehabilitation Medicine,
Americana Hotel, Miami Beach,
Aug. 27-Sept. 1, '67

October

American School Health Association,
Miami Beach, Oct. 21-26, '67

American Public Health Association,
Miami Beach, Oct. 23-27, '67

American Association of Public Health Physicians,
Miami Beach, Oct. 23-27, '67

November

Gerontological Society,
St. Petersburg, Nov. 9-11, '67

Southern Medical Association,
Miami Beach, Nov. 13-16, '67



Take five...

LABSTIX® provides 5 important urinary findings*—on a single reagent strip! That's *more* information than you can get from any other single reagent strip. You know the results in just 30 seconds—while the patient is still in your office—and readings are reliable and reproducible. LABSTIX is easy to handle, too. Never goes limp, even when wet, because it's made with clear, firm plastic. And results with LABSTIX are easy to read—color contrast between the test areas and the transparent plastic is clearly defined. An unexpected "positive" from testing with LABSTIX may help in detecting hidden pathology before marked symptoms are manifest.

*Blood; ketones; glucose; protein, and pH.

AMES COMPANY
Division Miles Laboratories, Inc.
Elkhart, Indiana 46514

Ames

Note: *AMERICAN HOSPITAL FORMULARY SERVICE CATEGORY NUMBER 36:88*

40167



...Plus one

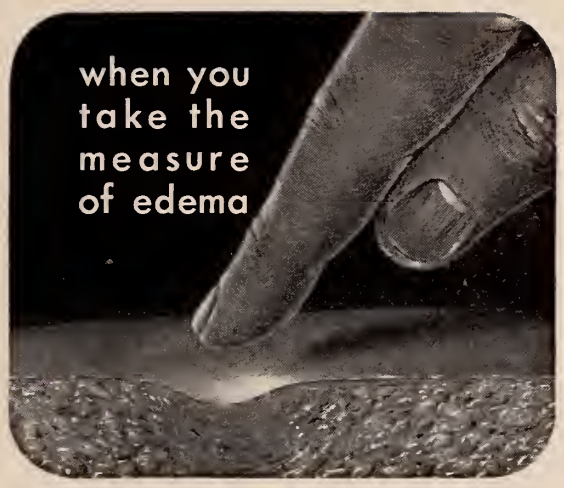
You can extend your testing scope by including ICTOTEST® Reagent Tablets, the 30-second determination for bilirubinuria—which can be an early sign of obstruction of the common bile duct, infectious hepatitis, or other liver disease. This test is also useful for detecting liver damage from carbon tetrachloride and other halogenated hydrocarbons used as industrial and household solvents. Positive findings with the urine-testing team of LABSTIX and ICTOTEST can represent significant guides to patient management in many clinical situations. "Negatives" may help rule out suspected abnormalities over a broad clinical range and are important for the patient's record.

AMES COMPANY
Division Miles Laboratories, Inc.
Elkhart, Indiana 46514

Ames

Note: *AMERICAN HOSPITAL FORMULARY SERVICE CATEGORY NUMBER 36:88*

40167



. . . introduce your patient to

aquaTAG®

(BENZTHIAZIDE)

AQUATAG (Benzthiazide) is a potent, orally active, nonmercurial, diuretic agent. It is effective orally in producing diuresis in edema states, where it is therapeutically comparable to mercurials given parenterally. AQUATAG (Benzthiazide) is mildly antihypertensive in its own right and enhances the action of other antihypertensive drugs when used in combination.

DIURETIC ACTION: Clinically, the oral administration of AQUATAG (benzthiazide) results in diuretic activity within two hours with maximal natriuretic, chloruretic, and diuretic effects occurring during the fourth, fifth and sixth hours. Maintenance of response continues for approximately 12 to 18 hours. Acidosis is an unlikely complication since therapeutic doses of AQUATAG (benzthiazide) do not appreciably increase bicarbonate excretion. Edematous patients receiving 50 mg. of AQUATAG (benzthiazide) daily for five days developed a maximal increase in the rate of sodium excretion on the first day, and maintained this high rate until depletion of excessive body stores of sodium.

In congestive heart failure patients, AQUATAG (benzthiazide) produced the same weight loss, during a 48-hour treatment period as did a maximally effective dose of hydrochlorothiazide.

DOSAGE: Diuresis, initially 50 to 200 mg.; maintenance 25 to 150 mg., daily. Hypertension 50 to 100 mg. initially, adjusted to 50 mg. t.i.d. or downward to minimal effective dosage level.

WARNINGS: Use with caution in the presence of renal disease as azotemia may be precipitated or increased. In patients with advanced hepatic disease, electrolyte imbalance may result in hepatic coma. Dosage of coadministered antihypertensive agents should be reduced by at least 50%. In cases of suspected electrolyte imbalance, serum electrolyte determinations should be performed and imbalance, if any, corrected. Stenosis or ulcer of small intestine have been reported with coated potassium formulas, and surgery has been required and deaths have occurred. Based on surveys of both United States and foreign physicians, incidence of these lesions is low and a causal relationship in man has not been definitely established. Until further experience has been obtained, the use of the drug in pregnant patients should be weighed against possible hazards to the fetus.

CONTRAINDICATIONS: AQUATAG (benzthiazide) is contraindicated in progressive renal disease or dysfunction including increasing oliguria and azotemia. Continued administration of this drug is contraindicated in patients who show no response to its diuretic or antihypertensive properties. Severe hepatic disease is a relative contraindication. (See "Warnings" above.)

PRECAUTIONS AND SIDE EFFECTS: Electrolyte imbalance with hypokalemia (digitalis toxicity may be precipitated), hypochloremic alkalosis and hyponatremia may occur.

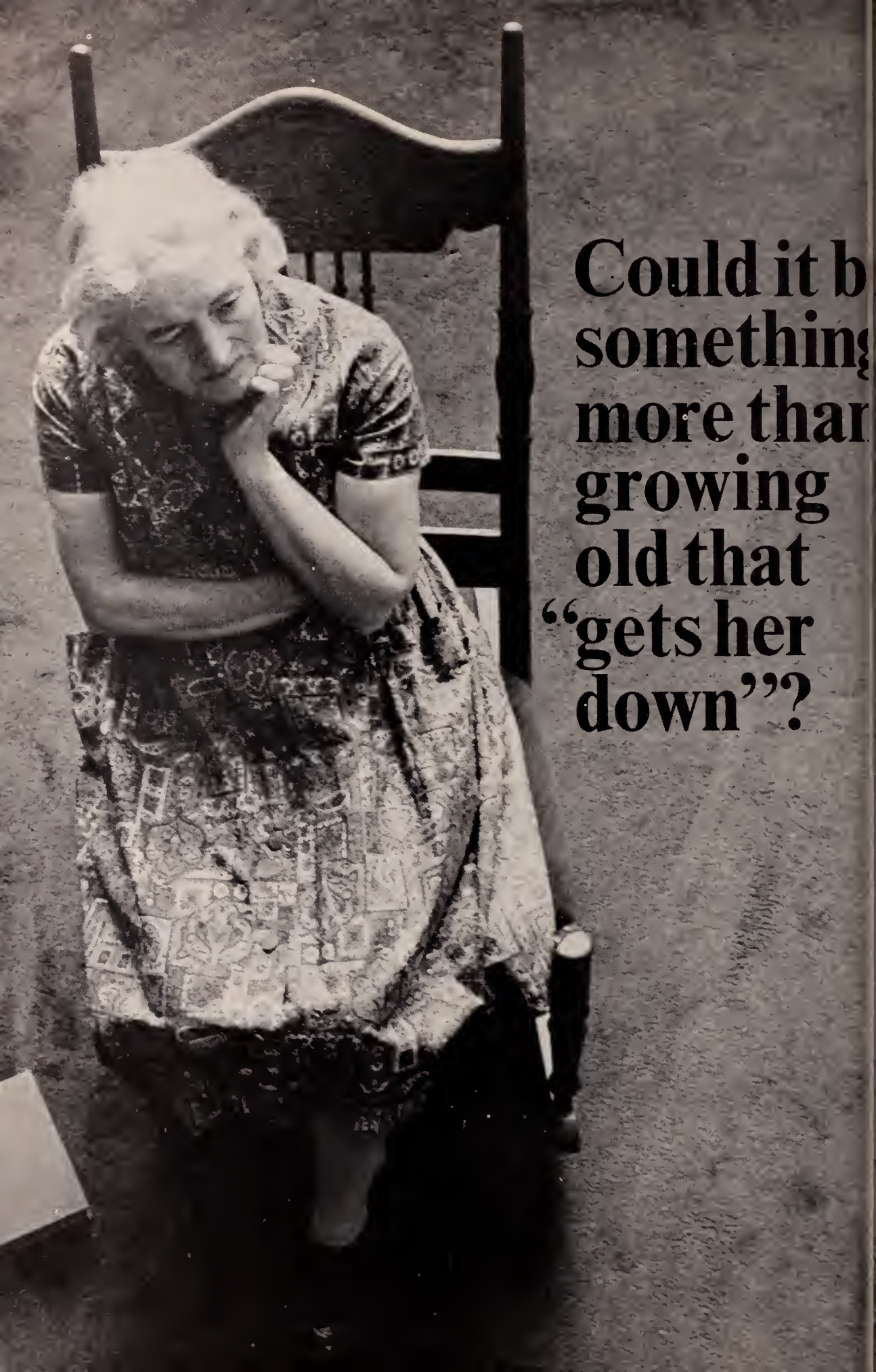
Patients with cirrhosis should be observed for impending hepatic coma and hypokalemia. Other reactions may include blood dyscrasias, hyperuricemia and gout, nausea, jaundice, anorexia, vomiting, diarrhea, dizziness, paresthesia, photosensitivity and headache. Hepatic fetor, tremor, confusion and drowsiness are signs of impending pre coma and coma in patients with cirrhosis. Insulin requirements may be altered in diabetes. AQUATAG (benzthiazide) should be used with caution post-operatively as hypokalemia is not uncommon. Potassium supplementation may be advisable pre- and post-operatively. There have been occasional reports of thrombocytopenia, leukopenia, agranulocytosis, aplastic anemia and precipitation of acute pancreatitis or jaundice.

Before prescribing or administering, read the package insert or file card available on request.

Available as 25 or 50 mg. scored tablets.

Request clinical samples and literature on your letterhead.

S.J. TUTAG & COMPANY
Detroit, Michigan 48234


Could it b
something
more than
growing
old that
"gets her
down"?

Mild mood depression, poor appetite, little interest in the present or future. Does this picture mean that she's giving in to functional fatigue?

When functional fatigue is part of her problem, Alertonic can help counteract accompanying apathy and inertia. It helps lift mood, stimulate appetite, and establish new interest in daily life.

Pleasant-tasting Alertonic combines pipradrol hydrochloride—a gentle cerebral stimulant—with an excellent vitamin and mineral formula, in a satisfying 15% alcohol vehicle.

Especially in the aging patient, nothing fosters confidence and a sense of well-being better than your own personal warmth, understanding, and encouragement. Between visits, however, your prescription for Alertonic can help keep your patient from giving in to functional fatigue.

Adequate dosage is important: Prescribe Alertonic—one tablespoonful t.i.d., 30 minutes before meals ...tastes best chilled.

And for your patient's sake, prescribe Alertonic in the convenient, economical one-pint bottle.

Available only on prescription

Alertonic®

Each 45 cc. (3 tablespoonfuls) contains: alcohol, 15%, pipradrol hydrochloride, 2 mg.; thiamine hydrochloride (vitamin B_1) (10 MDR*), 10 mg.; riboflavin (vitamin B_2) (4 MDR), 5 mg.; pyridoxine hydrochloride (vitamin B_6), 1 mg.; niacinamide (5 MDR), 50 mg.; choline,† 100 mg.; inositol,† 100 mg.; calcium glycerophosphate, 100 mg. (supplies 2% MDR for calcium and for phosphorus) and 1 mg. each of the following: cobalt (as chloride), manganese (as sulfate), magnesium (as acetate), zinc (as acetate), and molybdenum (as ammonium molybdate).

*Multiple of adult Minimum Daily Requirement supplied.
†The need for these substances in human nutrition has not been established.

Indications: 1. Functional fatigue such as that often associated with: a depressing experience or stressful time of life; advancing years; convalescence; limited activity or confinement. 2. Poor appetite and vitamin-mineral deficiency as they occur in: patients having faulty eating habits; geriatric patients who are losing interest in food; patients convalescing from debilitating illness or surgery.

Contraindications: As with other drugs with CNS stimulating action, Alertonic is contraindicated in hyperactive, agitated or severely anxious patients and in chorea or obsessive compulsive states.

Side effects: Reports of overstimulation have been rare. Patients who are known to be unduly sensitive to the effects of stimulant drugs should be observed carefully in the initial stages of treatment.

Dosage: Adults, 1 tablespoonful; children (over 15 years old), 1 to 2 teaspoonfuls; children (4 to 15 years old), 1 teaspoonful. To be taken three times daily 30 minutes before meals.

Merrell

THE WM. S. MERRELL COMPANY
Division of Richardson-Merrell Inc.
Cincinnati, Ohio 45215

7-8378



NUMA® DURA-TABS®

for *prolonged* aid to ventilation

Each Numa Dura-Tab provides:

theophylline	225 mg.
ephedrine HCl	50 mg.
butabarbital	25 mg.

(Warning: butabarbital may be habit-forming.)

Numa Dura-Tabs provide *prolonged* three-way action to ease breathing. Theophylline, a potent bronchodilator with minimal effect on the CNS, opens air passages and reduces bronchial spasm. Ephedrine HCl improves breathing capacity through its decongestant action. Butabarbital, a mild sedative, allays fear and apprehension.

Dosage: One Numa Dura-Tab every 8 to 12 hours helps keep the asthmatic patient symptom-free all day/all night.

Precautions: Use with caution in cardiovascular or hyperthyroid disease, severe hypertension, circulatory collapse, prostatic hypertrophy, or glaucoma.

WYNN Pharmaceuticals, Inc., Phila., Pa. 19132 • Manufacturers of QUINAGLUTE® DURA-TABS®
(Quinidine Gluconate 5 gr.)

"Take a laxative" is a harsh sentence

Although there are more than 60 ethical laxatives available for the constipated patient, many, unfortunately, do not really produce an effect much like a normal bowel movement. Instead they whip the bowel, torment it and leave it irritated, inflamed and exhausted.
On the other hand, Dulcolax provides a nearly normal movement. Through its unique contact action, it induces the kind of natural contraction waves of the colon necessary for gentle, complete, comfortable bowel movements.
For your next constipated patient, try Dulcolax–the laxative with the gentle touch.

Dulcolax, brand of bisacodyl tablets (5 mg.)

Under license from
Boehringer Ingelheim
G.m.b.H.

Geigy Pharmaceuticals
Division of
Geigy Chemical Corporation
Ardsley, New York

Dulcolax®
a gentle persuasion

Geigy



why wonder about a drug

when you know

DECLOMYCIN®
DEMETHYLCHLORTETRACYCLINE

s effective b.i.d.



It's made for b.i.d.

fective in a wide range of everyday infections — respira-ry, urinary tract and others — in the young and aged — e acutely or chronically ill — when the offending organ-ms are tetracycline-sensitive.

ntraindication — History of hypersensitivity to demethyl-lortetracycline.

arning — In renal impairment, usual doses may lead to cessive systemic accumulation and liver toxicity. Under ch conditions, lower than usual doses are indicated d, if therapy is prolonged, serum level determinations ay be advisable. A photodynamic reaction to natural or tificial sunlight has been observed. Small amounts of ug and short exposure may produce an exaggerated nburn reaction which may range from erythema to vere skin manifestations. In a smaller proportion, pho-allergic reactions have been reported. Patients should oid direct exposure to sunlight and discontinue drug at e first evidence of skin discomfort.

ecautions and Side Effects — Overgrowth of nonsuscep-le organisms may occur. Constant observation is essential. If new infections appear, appropriate measures should be taken. Use of demethylchlortetracycline during tooth development (last trimester of pregnancy, neonatal period and early childhood) may cause discoloration of the teeth (yellow-grey-brownish). This effect occurs mostly during long-term use but has also been observed in short treatment courses. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment. Side reactions include glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis and dermatitis. If adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy. Anaphylactoid reactions have been reported.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products.

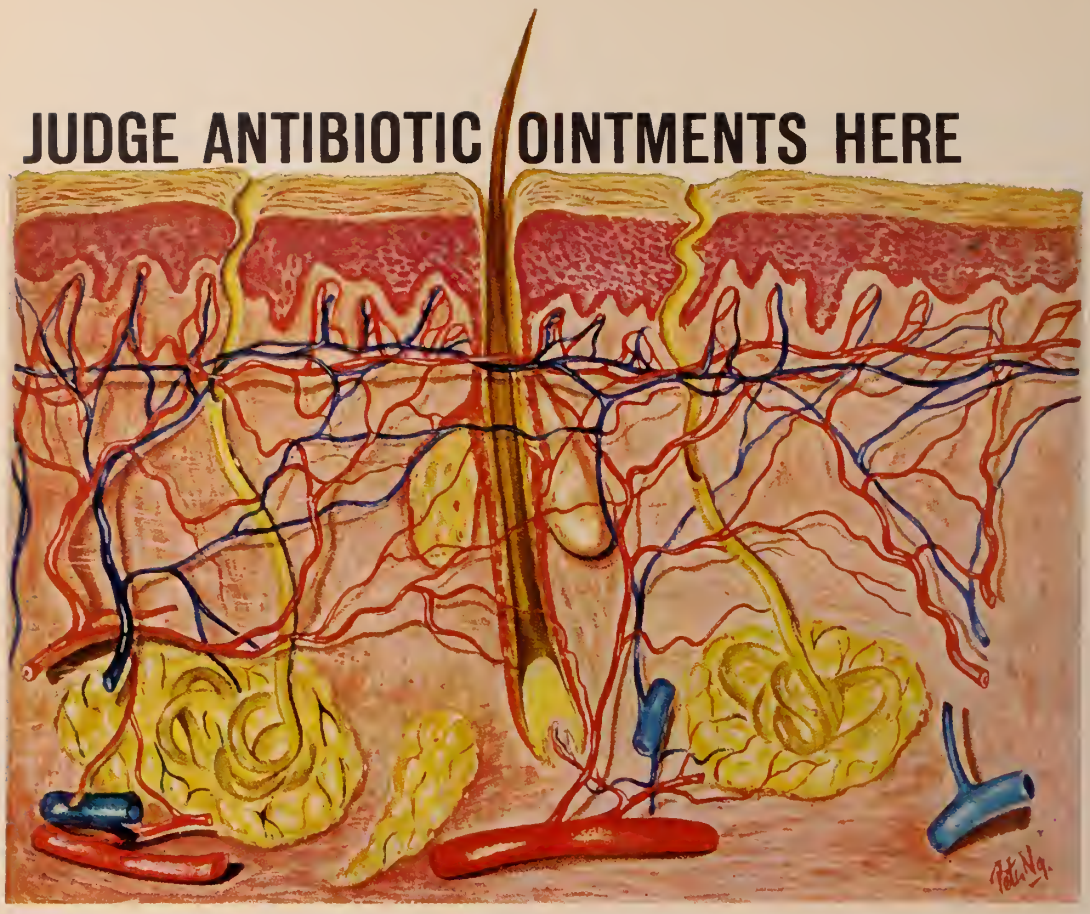
Capsules: 150 mg; *Tablets:* film coated, 300 mg, 150 mg, and 75 mg of demethylchlortetracycline HCl.

EDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York

417-6—4076

Lederle

JUDGE ANTIBIOTIC OINTMENTS HERE



Results on skin are final proof of any topical antibiotic's effectiveness

No in vitro test can duplicate a clinical situation on living skin. 'Neosporin' (polymyxin B – bacitracin – neomycin) Ointment has consistently proven its effectiveness in thousands of cases of bacterial skin infection. The spectra of the three antibiotics overlap in such a way as to provide bactericidal action against most pathogenic bacteria likely to be found topically. Diffusion of the antibiotics from the special petrolatum base is rapid since they are insoluble in the petrolatum, but readily soluble in tissue fluids. The Ointment is bland and nonirritating.

Caution: As with other antibiotic preparations, prolonged use may result in overgrowth of nonsusceptible organisms and/or fungi. Appropriate measures should be taken if this occurs. Articles in the current medical literature indicate an increase in the prevalence of persons allergic to neomycin. The possibility of such a reaction should be borne in mind.

Contraindications: This product is contraindicated in those individuals who have shown hypersensitivity to any of its components.

Supplied: Tubes of 1 oz., ½ oz. with applicator tip, and ⅛ oz. with ophthalmic tip.

Complete literature available on request from Professional Services Dept. PML.

'NEOSPORIN'®

brand

POLYMYXIN B-BACITRACIN-NEOMYCIN OINTMENT

BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N.Y.

Don't let monilia cut broad-spectrum therapy short...

start with Tetrex-F®

tetracycline phosphate complex-nystatin

Use of broad-spectrum antibiotics can cause fungal overgrowth in the alimentary tract... and give rise to symptoms so troublesome that therapy must be prematurely stopped. Tetrex-F (tetracycline phosphate complex-nystatin) helps you circumvent this problem.

The nystatin can prevent overgrowth of monilia; the phosphate complex delivers tetracycline to the blood rapidly. Side effects are infrequent.

High-Risk Patients

Tetrex-F (tetracycline phosphate complex-nystatin) is especially useful in patients most susceptible to fungal overgrowth during tetracycline therapy: (1) the elderly or debilitated, (2) young children, (3) the diabetic, (4) those on long-term tetracycline therapy, (5) those on steroid therapy, (6) those who have had moniliasis before, and (7) pregnant patients with a history of monilial vaginitis.

When you start with economical Tetrex-F (tetracycline phosphate complex-nystatin), you can complete the full course of broad-spectrum therapy with less chance of losing control elsewhere. A good start for a healthy finish.

PRESCRIBING INFORMATION. For complete information consult Official Package Circular. *Indications:* Infections of respiratory, gastrointestinal and genitourinary tracts and skin and soft tissues due to tetracycline-sensitive organisms, in patients with increased susceptibility to monilial infections. *Contraindications:* The drug is contraindicated in patients hypersensitive to its components. *Warnings:* Photodynamic reactions have been produced by tetracyclines. Natural and artificial sunlight should be avoided during therapy. Stop treatment if skin discomfort occurs. With renal impairment, systemic accumulation and hepatotoxicity may occur. In this situation, lower doses should be used. Tooth staining and enamel hypoplasia may be induced during tooth development (last trimester of pregnancy, neonatal period and childhood). *Precautions:* Bacterial superinfections may occur. Infants may develop increased intracranial pressure with bulging fontanels. In gonorrheal therapy, serologic tests for syphilis should be conducted initially and monthly for 3 months. *Adverse Reactions:* Glossitis, stomatitis, nausea, diarrhea, flatulence, proctitis, vaginitis, dermatitis, and allergic reactions may occur. *Usual Adult Dosage:* 1 capsule q.i.d. Continue for 10 days in Beta-hemolytic streptococcal infections. Administer one hour before or two hours after meals. *Supplied:* Capsules, bottles of 16 and 100. Each capsule contains tetracycline phosphate complex equivalent to 250 mg. tetracycline HCl activity and 250,000 units of nystatin. For Oral Suspension, 125 mg. tetracycline and 125,000 u. nystatin/5 ml., 60 ml. bottles.

BRISTOL

BRISTOL LABORATORIES
Division of Bristol-Myers Company
Syracuse, New York 13201


1 PINT (473 cc.)
M-87
SUSPENSION
CO-PYRONIL
PYRROBUTAMINE COMPOUND
100 No. 336
PULVULES
CO-PYRONIL
PYRROBUTAMINE COMPOUND
000
No. 342
PULVULES
CO-PYRONIL
PYRROBUTAMINE COMPOUND
Pediatric
for
quick relief
that lasts
and lasts
Co-Pyronil®
Pyrrobutamine Compound
Lilly
Additional information available to physicians upon request. ELI LILLY AND COMPANY, INDIANAPOLIS, INDIANA 46206.
700807



Scientific Section

Student Research Papers

University of Miami

School of Medicine

One of the great attractions of medicine as a career is its breadth. The scope of medicine is so wide that it can accommodate men and women of the greatest diversity of talent. The one essential requirement is an interest in and a devotion to serving humanity. But the person with medical training can serve humanity in many different ways—as a family physician, as a practitioner of any of a large number of specialties, as a practitioner of medical research or as an administrator of a medical institution. None of these medical careers is less important or less honored than another. The role of medical research is to fashion the weapons which the medical practitioner can use in preventing and alleviating human suffering.

Students at the University of Miami School of Medicine are not at present required to undertake research projects. They are encouraged to do so, however, and a substantial number participate in the research programs in which various faculty members are engaged. Whether or not a man may wish to make research his career, he must be familiar with scientific methods if he is to practice medicine intelligently today. And whether his career is in medical practice or research or administration, he will find the ability to write well a valuable asset.

Of the following papers written by students in the University of Miami School of Medicine, one reports a research project conducted in the Department of Microbiology. The others are papers submitted by students in the junior class to fulfill a requirement in the Surgery Clerkship.

We appreciate the opportunity afforded us to publish these papers in the Journal of the Florida Medical Association.

Hayden C. Nicholson, M.D.
Vice President for Medical
Affairs and Dean,
University of Miami
School of Medicine

Role of the Spleen in the Immune Response of Teleosts and Elasmobranchs

FRANK A. FERREN JR.

During the course of a wide research program to determine the nature and mechanism of the immune response of teleosts and elasmobranchs, it became necessary to determine what part, if any, was played by the spleen in this process. It has been shown by Clem and Sigel[1] that sharks and bony fishes are capable of producing significant antibody titers when challenged with various agents, although routes of administration and species vary. It has also been shown that in higher animals the removal of the spleen does not seem to affect the animal's ability to produce antibodies provoked by subcutaneous or intramuscular routes, but has a depressant effect when the antigen is given by the intravenous route.

It was, therefore, our purpose to determine the effect of splenectomy on marine animals as one facet of an extensive immunological study of these animals.

Selection of Species for Splenectomies

Although many species of teleosts were suitable from an immunological point of view, the gray snapper (Lutjanus griseus) and the margate (Haemulon albium) were most suitable, as these fish adapt well to captivity and tolerate surgery and anesthesia well.

Fairly large specimens were selected, most weighing between 500 and 1,000 Gm. Although we were plagued during this work by pseudomonas infections with severe and extensive eye damage and septicemia, our splenectomized fish did surprisingly well, remaining in better shape than, and outliving, our controls.

Two species of sharks were also used; the nurse shark (Ginglymostoma cirratum) for the intravenous inoculation, and the lemon shark (Negaprion brevirostris) for the subcutaneous injection. With both species we had some difficulty with wound breakdown and evisceration due to premature dissolution of sutures in sea water, but eventually most of the incisions healed completely, and, with one or two exceptions, the animals survived. We used relatively small sharks, weighing between 1,000 and 3,000 Gm.

Capture and Holding of Specimens

The fishes in this study were caught with handlines and transferred in live wells to pens at the Lerner Marine Laboratory, Bimini, Bahamas. Sharks were kept in large sandy bottom pens, while other fish were kept in smaller floating pens, measuring 6 by 3 by 5 feet. Variables, such as water temperature and salinity, could not be controlled, but this system approximated natural conditions. Teleosts were fed raw conch; sharks received fresh fish three times a week.

Methods and Techniques

MS-222 (Tricaine Methanesulfonate) was the anesthetic used on both other sharks and fish. A concentration of 1:4,000 in sea water was used to anesthetize the animals for both operations and bleeding. During operations it was necessary to add a few drops of MS-222 (1:1,000) to the gills every few minutes to keep the animals well anes-

This work was supported by a grant from the Office of Naval Research and was done at the Lerner Marine Laboratory, Miami, under the supervision of M. Michael Sigel, Ph.D. and under the auspices of the University of Miami School of Medicine.
This article was prepared prior to Mr. Ferren's graduation in June 1966. Dr. Ferren is now interning at Queens Hospital, Honolulu, Hawaii.

thetized. The gills were kept moist intermittently with sea water from a syringe during the entire procedure, which lasted 20 to 30 minutes.

With fish, a one to two inch longitudinal incision was made just to the right of the right pectoral fin, exposing the gallbladder and adjacent intestine. The intestine was pushed aside, exposing the underlying spleen, which was separated from its mesentery by blunt dissection. This technique produces little bleeding as compared with sharp dissection. Tension cannot be put on the spleen as it is extremely friable in these animals. The peritoneal cavity was then washed with two to three milliliters of tetracycline solution (5 mg./ml.). The peritoneum was closed with a running suture using 2-0 chromic catgut. The body wall and skin were closed with mattress sutures using 2-0 silk. A Polymycin-Neomycin-Bacitracin B ointment was applied to the wound.

With sharks, a two inch transverse incision just below the posterior borders of the pectoral fins was used. The spleen is found attached to the intestine by a narrow piece of mesentery. In sharks of the size we used, the spleen was a long organ averaging three to five inches. Beginning posteriorly, small sections of bowel and spleen were pulled through the incision and separated, allowing the use of a transverse incision which heals better, and a smaller incision which heals faster and decreases the incidence of evisceration. Sharp dissection is necessary in sharks, and

Table 1.—Passive Hemagglutinin Titers of Sera from Snappers Injected with BSA—5 mg.

Snapper No.	Day of Bleeding	
	0	11
	Splenectomized Fish—Intravenous Injection	
363	<40	640
364	<40	1280
365	—	640
366	—	>10,240
367	—	640
368	<40	<40+
369	—	>10,240
370	80	1280
	Control Fish—Intravenous Injection	
375	—	2560
378	—	2560
380	—	640
	Splenectomized Fish—Subcutaneous Injection	
381	—	5120
382	<40	10,240
384	—	5120
385	<40	5120
386	—	5120
387	40	10,240
388	<40	>10,240
389	—	2560
	Control Fish—Subcutaneous Injection	
390	—	640
391	<40	320*
392	40	>10,240
393	—	1280
395	<40	320*
396	<40	640

\+ Serum drawn postmortem on day 10
* Sera drawn postmortem on day 9
— Pool sera. Control sera 40. Splenectomy sera 40.

Table 2.—Hemagglutination-Inhibition Titers from Nurse Sharks Injected Intravenously with Influenza A Virus, Strain PR8

Shark No.	Day of Bleeding						
	0	11	26	32	40	52	60
	Splenectomized Sharks						
905	<20	<20	<20	<20	ND	<20	<20
906	<20	<20	ND	80	80	ND	ND
907	<20	<20	<20	<20	40	<20	<20
	Control Sharks						
908	<20	<20	<20	20 (R<20)	ND	80 (R<20)	<20
909	<20	<20	40	40	ND	40 (R 20)	20

ND — No data.
R — Repeat test.

many of the larger vessels must be tied before cutting. In the lemon shark there was an additional complication; the head of the spleen was buried in the pancreas. With care, however, the spleen could be completely dissected away without injuring the pancreas.

Shark wounds were closed using silk sutures both internally and externally, as the catgut did not hold its strength for a sufficient period of time as it had in the other fish. In addition, sections of French catheter were used to cover the external sutures to keep them from sawing their way toward the incision as the sharks swam. Both sharks and other fish were bled via the hemal arch ("tail vein"), and those receiving antigens intravenously were inoculated through this vein.

Effect of Splenectomy of the Humoral Antibody Formation in Teleosts

In this phase of the experiment, 32 gray snappers were used and divided into four groups: (1) splenectomized fish immunized intravenously; (2) control fish inoculated intravenously; (3) splenectomized fish injected subcutaneously, and (4) control fish immunized subcutaneously. All fish were given BSA in a 5.0 mg. dose, and the titers were determined by passive hemagglutination tests; the results are summarized in table 1. The results failed to show any depression in the immune response of splenectomized fish regardless of which route of inoculation was used.

Effects of Splenectomy on Humoral Antibody Formation in Elasmobranchs

The splenectomy work on the sharks was done as two separate experiments. The first group consisted of lemon sharks and contained three splenectomized sharks, two sham operated sharks and two controls. These animals were given 4 ml. of concentrated PR8 virus subcutaneously. The results are shown in figure 1. No difference in the level of antibody response was noted in these groups.

The second experimental group consisted of nurse sharks which received concentrated PR8 virus intravenously. Three splenectomized sharks and two controls were used. The results, shown in table 2, indicated the same degree of immunization. Titers of 1:40 to 1:80 were noted in both groups starting with day 26. Thus, splenectomy did not diminish the immune response. It should

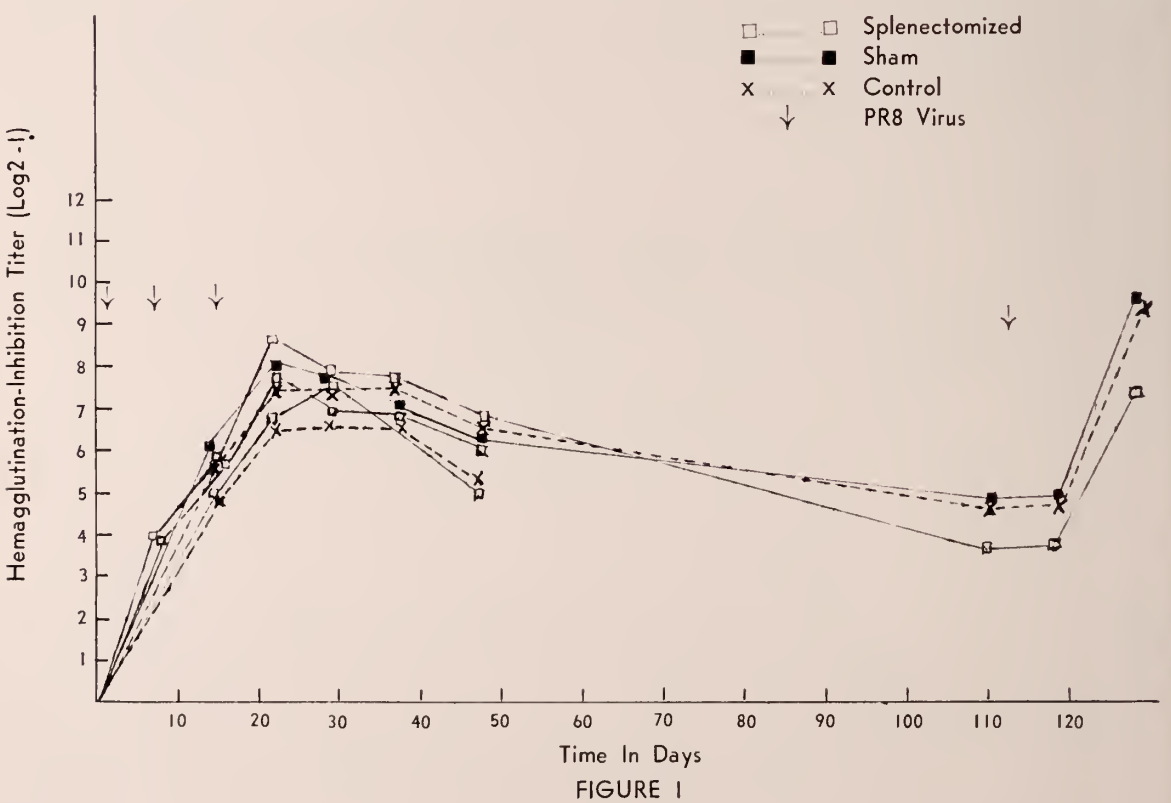


FIGURE 1

be pointed out, however, that the antibody titers which were attained with intravenous injection were considerably lower than those attained previously with subcutaneous or intramuscular injection.

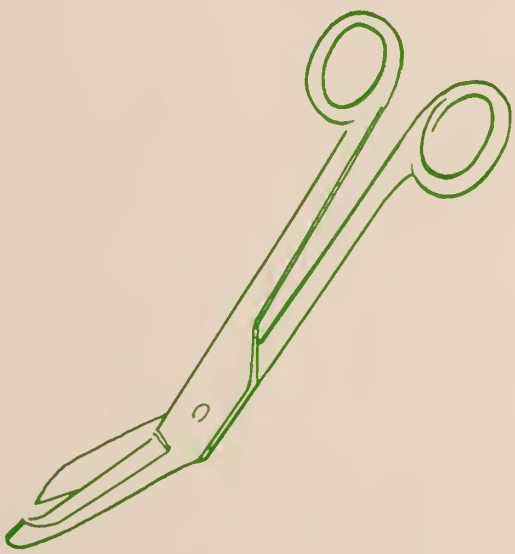
Summary

The inoculation of antigenic substances into sharks and bony fish produces a significant antibody response. In this study, an attempt was made to determine the effect of splenectomy on the level of this antibody response. Since no change occurred, it must be assumed that the spleen does not play a significant role in at least the primary immune response of bony fishes and sharks, regardless of whether antigen is given subcutaneously or intravenously. In fact, the simultaneous existence in the laboratory of a fatal gram-negative infection strongly indicated that the splenectomized fish were more resistant than the controls. No explanation has been sought. Our results also indicate that in sharks the intravenous route of inoculation is inferior to the subcutaneous route, but in teleosts the intravenous route gives a good response. Our work is being continued, and at the moment it appears in our present studies that no germinal centers are found in the spleen; at present we suspect that antigen-induced activation occurs primarily in the head kidney of these animals.

Reference

1. Clem, L. W., and Sigel, M. M.: Comparative Immunochemical and Immunological Reactions in Marine Fishes with Soluble, Viral, and Bacterial Antigens.

Dr. Ferren, Queen's Hospital, Honolulu, Hawaii 96813.



The Subclavian Steal Syndrome

MYRON M. PERSOFF

Transient recurrent attacks of focal cerebral dysfunction may be attributed to ischemia in the territory of the carotid or vertebrobasilar arteries. This transient cerebral ischemia is the result of a temporary discrepancy between the oxygen requirements of neural tissue and the availability of oxygenated blood.[4] Many mechanisms have been postulated to account for this, including vasospasm, postural changes, external compressions of the carotid or vertebral arteries in the neck due to head position, embolic phenomena and "hemodynamic crises."[12] Contorni[3] suggested yet another cause, the reversal of blood flow through the vertebral arteries secondary to proximal obstruction of the ipsilateral subclavian artery. The term "Subclavian Steal Syndrome" was coined by Reivich and co-workers in 1961.[5,13]

The Subclavian Steal Syndrome depends upon occlusion or stenosis of the subclavian artery proximal to the origin of the vertebral artery. This obstruction causes a decrease in pressure at the proximal end of the vertebral artery which, if sufficient, will create a reversal of flow in that artery. The same phenomenon has been reported with innominate artery occlusion.[1,2,8,12] In patients with innominate artery occlusion, the neurologic manifestations consist of a combination of cerebral hemisphere and brainstem symptoms. In those with subclavian artery disease alone, however, the symptoms are primarily related to the brainstem involvement.[11] In a recent review, it was discovered that in the majority of cases coming to operation, an atheromatous plaque with an organizing thrombus was involved in the production of symptoms.[12] It seems likely that concomitant disease of the cranial blood supply is a prerequisite for symptoms to occur.[9,11,12] Another frequently encountered cause has been the Blalock-Taussig operation for the tetralogy of Fallot, in which the subclavian artery is anastomosed end to side with the pulmonary artery.[7,11,12]

Anatomy

The vertebral arteries arise on the posterior superior aspect of the subclavian artery as its first branch. They ascend through the neck and foramen magnum into the cranial cavity to join the basilar artery on the ventral surface of the brainstem at the pontomedullary junction. The basilar artery divides at the rostral border of the pons into two posterior cerebral arteries, which in turn communicate with the carotid circulation via the two posterior communicating arteries. The vertebral arteries give rise to muscular, meningeal and spinal branches as well as the anterior and posterior spinal arteries and the posterior inferior cerebellar arteries.

Clinical Features and Diagnosis

Of the cases thus far reported and studied, the average age range was between 50 and 60 years, with a definite male predominance of about four to one.[1,11,14] In 75% of the cases, the lesion occurred on the left side, which may be due to a wider angle of origin of the left subclavian artery, creating a certain degree of turbulence favoring atheromata or thrombus formation.[12] As this is apparently an accessible lesion to surgery and the diagnosis is not difficult, every physician should

be familiar with its cardinal signs and during the investigation of patients with cerebrovascular disease the possibility of the subclavian steal syndrome should be investigated. The symptoms are characterized by intermittent episodes of vertigo, paresis, paralysis, paresthesias of the extremities or mouth, diplopia, blurring of vision, temporary bouts of blindness, tinnitus or syncope.[1-14]

In the typical case, symptoms are brought on or exacerbated by exercise of the involved arm,[12] and for this reason, an exercise test may be used to produce cerebral symptoms, arm symptoms, a supraclavicular bruit, disappearance or absence of the ipsilateral radial pulse and accentuation or presence of a significant blood pressure difference in the two arms. As head position may sometimes worsen or initiate symptoms, the false diagnosis of scalenus anticus syndrome has been made.[11] For this reason, the differential diagnosis should include diseases producing external compression of the carotid and vertebral arteries. Angiography is the major clinical tool for the diagnosis of this lesion, and the best studies have been made by means of aortic arch visualization through retrograde catheterization from the brachial, axillary or femoral arteries with cineangiography.[1-14] It has been demonstrated that the reversal of vertebral arterial flow occurs only when the stenotic or obstructive lesion in the subclavian artery is situated proximal to the origin of the vertebral artery. As angiography itself may produce local hemodynamic changes with artifactual reversal of vertebral arterial flow, Marshall and Mantini[10] verified the actual reversal of flow using the dye-dilution technique.

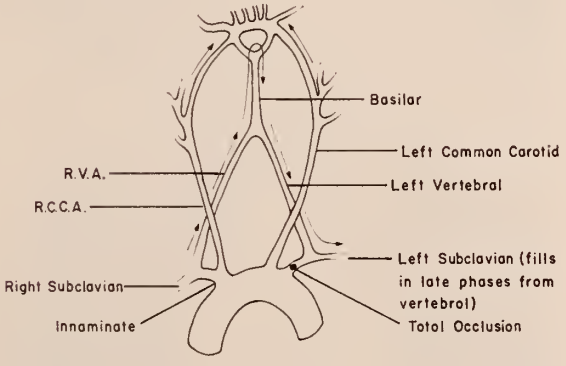
Experimental Evidence

Reivich, Holling, Roberts and Toole,[13] in 1961, showed by use of an electromagnetic flowmeter a total reduction of 41% of cerebral flow in dogs after occlusion of the left subclavian artery. They also found that cessation of antegrade flow occurs in the vertebral artery of dogs when the mean pressure in the distal subclavian artery is reduced by about 10%. As this surprising figure was derived from experimentation on only four dogs, and the cerebral circulation of dogs is primarily dependent upon the vertebral arterial circulation instead of the carotids as in man, perhaps further study is necessary for the proper interpolation of these results with regard to human physiology. It is easier to explain the occurrence of cerebral ischemia as a result of a lesion causing outflow of a considerable amount of blood from the cerebral circulation than it is to offer a universally satisfactory explanation of the way in which reduced inflow through one vertebral artery might produce a significant impairment of the basilar arterial flow. The latter was the only available explanation of the cause of cerebral ischemia by subclavian artery stenosis prior to Reivich and associates' work.[9]

Report of Cases

Case 1.—A 66 year old white man was admitted to the hospital for the first time with the chief complaint of "dizzy spells" of one year's duration. Approximately one year prior to admission, he noted the onset of vertigo, weakness and falling to the left side, with some syncopal attacks. These episodes increased in frequency to thrice weekly upon admission. He complained of weakness of the left side with paresthesias and cramps of the left arm, usually between attacks. The patient experienced spots before his eyes during the episodes. Cessation of arm exercise gave him some relief from the symptoms. One year prior to admission he was hospitalized for a "nervous breakdown."

Pertinent physical examination included a blood pressure of 134/72 mm. Hg in the right arm with none obtainable in the left. A pulse of 68 was obtained at the right wrist with none palpable on the left. The carotid pulses were equal and bilaterally full. Neurological examination showed a definite left hemiparesis. Aortography was done via femoral catheterization (figs. 1-4). Films showed complete block of the left subclavian artery about 1 cm. from its takeoff. Distal to the occlusion, the vessel was filled from the left vertebral artery. An atherosclerotic plaque was present in the origin of the right subclavian artery. The patient was operated upon and a large thrombus of the left subclavian artery with complete occlusion was found. The occluded portion was resected and a vein patch graft performed. On the first postoperative day, the left radial pulse disappeared due to thrombosis of the left subclavian artery. The patient was reoperated upon and a fresh clot was removed from the left subclavian and left vertebral arteries. The patient did well following this procedure, and remains free of symptoms to date.



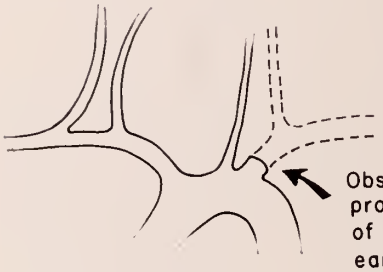
MECHANISM OF "STEAL" IN PREVIOUS CASE HISTORY

Figure 1

Case 2.—A 62 year old man complained of episodes of dizziness for a period of three months, during which he had to stop walking to alleviate the symptoms. These episodes increased in number over the ensuing weeks to 20 to 30 times per day, lasting one to five seconds, and related to exertional activity, especially bending over. He had an associated instability with a tendency to face to the left, mild paresis of the left arm and scotomas.

Physical examination showed a difference of 80 systolic blood pressure in the left arm. The radial and brachial pulses on the left were unobtainable. A mild coolness and pallor were noted in the left arm, and slight left biceps atrophy with a mild paresis. No abnormal superficial or deep reflexes were present. His gait was abnormal only in that he was unable to walk tandem. All laboratory findings were within normal limits. The electrocardiogram showed a questionable interatrial conduction delay and a questionable old infarct. Attempts to produce symptoms by exercise or manipulation were unrewarding. Aortic arch angiography showed visualization of the right innominate artery, subclavian, carotid and vertebral arteries. There was no visualization of the left subclavian artery in the first three seconds, but filling occurred afterwards by retrograde flow from the left vertebral artery.

As symptoms were progressing, the patient was operated upon and a left subclavian endarterectomy performed. A large atheromatous plaque was removed which extended from the origin of the left subclavian artery to well beyond the origin of the left vertebral artery and into the vertebral artery as well. After removal, pulsations of the left vertebral and subclavian arteries were noted. The brachial and radial pulses were immediately palpable after the operation. The patient returned in three months for a right vertebral endarterectomy and has been free of symptoms from the time of the first operation until the present.





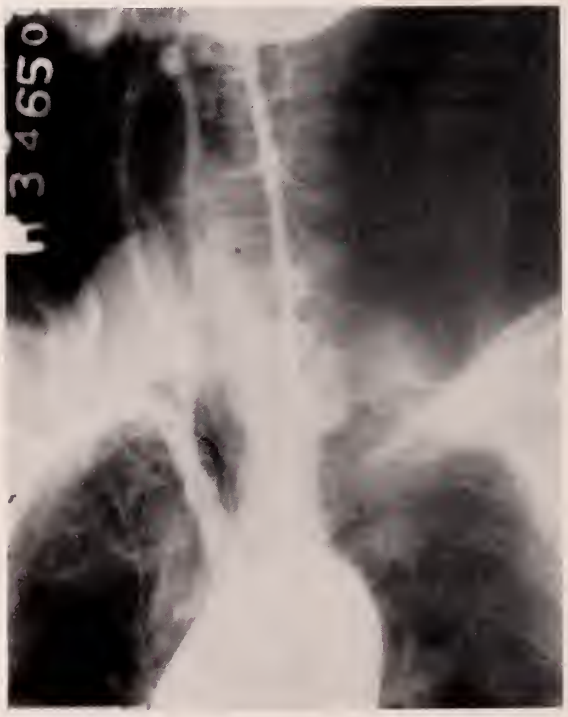


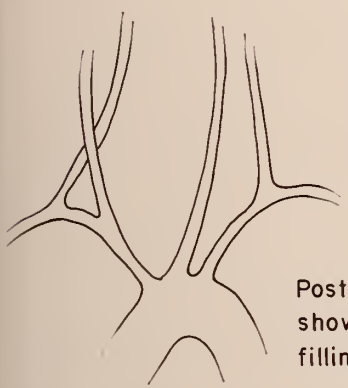
Figure 2



Figure 3

Treatment

Revascularization of the obstructed subclavian artery is efficacious and indicated if more than 60% of the diameter of the vessel is shown to be occluded on arteriography, or if there is a lowering of more than 30 mm. Hg of systolic blood pressure in the affected arm. The main indication, of course, is the presence of symptoms of brainstem ischemia reproduced by arm exercise. The surgical procedures thus far employed include endarterectomy, prosthetic bypass graft, ipsilateral vertebral ligation and end to end anastomosis of the carotid to the vertebral artery, the latter especially recommended for poor surgical risks.[1-15] Of these procedures, endarterectomy appears to have been the method of choice in cases studied thus far.



Post-operative film showing complete filling in early phase.

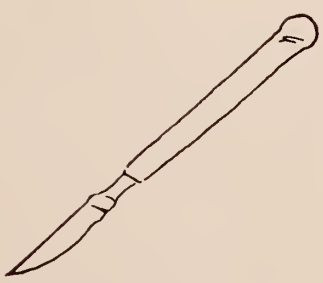


Figure 4

References

1. Ashby, R. N.; Karras, B. G., and Cannon, A. H.: Clinical and Roentgenographic Aspects of the Subclavian Steal Syndrome, Am. J. Roentgenol. 90:535-545 (Sept.) 1963.
2. Blakemore, W. S.; Hardesty, W. H.; Bevilacqua, J. E., and Tristan, T. A.: Reversal of Blood Flow in the Right Vertebral Artery Accompanying Occlusion of the Innominate Artery, Ann. Surg. 161:353, 1965.
3. Contorni, L.: The Vertebro-vertebral Collateral Circulation in Obliteration of Subclavian Artery at its Origin, Minerva Chir. 15:268-271 (Mar. 15) 1960.
4. Corday, E., and Rothenberg, S. F.: The Clinical Aspects of Cerebral Vascular Insufficiency, Ann. Int. Med. 47:626-639 (Oct.) 1957.
5. Editorial: A New Vascular Syndrome, "the Subclavian Steal," New Eng. J. Med. 265:912, 1961.
6. Fischer, M. J., and Mattey, W. E.: The Subclavian Steal Syndrome, Am. J. Roentgenol. 90:532-534 (Sept.) 1963.
7. Folger, G. M., and Kishor, D. S.: The Subclavian Steal in Patients with Blalock-Taussig Anastomosis, Circulation 31:241, 1965.
8. Know, W. G.; Nay, H. R., and McCabe, R. E.: The Subclavian Steal Syndrome, Report of 3 Cases, Postgraduate Medicine 38:608, 1965.
9. Mannick, J. A.; Suter, C. G., and Hume, D. M.: The Subclavian Steal Syndrome: A Further Documentation, J. A. M. A. 182:254-258 (Oct. 20) 1962.
10. Marshall, R. J., and Mantini, E. L.: Dynamics of the Collateral Circulation in Patients with Subclavian Steal Syndrome: Abstracts, 37th Scientific Session of Amer. Heart Assoc. Circulation 30:111, 1964 and 31:249, 1965.
11. Nemir, P.; Bahabozorgui, S., and Wagner, D. E: Brachial-Basilar Insufficiency and the Subclavian Steal Syndrome, J. Thoracic and Cardiovasc. Surg. 50:534, 1965.
12. Patel, A., and Toole, J. F.: Subclavian Steal Syndrome—Reversal of Cephalic Blood Flow. Medicine 44:289, 1965.
13. Reivich, M.; Holling, H. E.; Roberts, B., and Toole, J. F.: Reversal of Blood Flow Through the Vertebral Artery and Its Effect on Cerebral Circulation, New England J. Med. 265:878-885 (Nov. 2) 1961.
14. Steinberg, I., and Halpern, M.: Roentgen Manifestations of the Subclavian Steal Syndrome, Am. J. Roentgenol. 90:528-531 (Sept.) 1963.
15. Clark, K., and Perry, M. O.: Carotid-vertebral Anastomosis—An Alternate Technique for Repair of the Subclavian Steal Syndrome, Ann. Surg. 163:414, 1966.

Mr. Persoff, University of Miami School of Medicine, Miami 33136.



Combined Lung-Liver Radioisotope Scan in the Diagnosis of Subphrenic Abscess

W. M. WHITLEY

Subdiaphragmatic abscess may develop as a complication of almost any intraperitoneal infection. It is difficult to diagnose and is often fatal. The average mortality has been estimated at as high as 40%, and in 10% to 15% of the patients with this disease diagnosis is first made at postmortem examination.[1]

Several criteria exist which one may use in the diagnostic approach. These include irregular fever of unknown cause following the fever of original trauma and systemic symptoms such as anorexia, weakness, sweating and occasionally nausea and vomiting. Pain is infrequently of value in localizing the abscess; however, palpation of the costal margin anteriorly or along the twelfth rib posteriorly may reveal tenderness. The leukocyte count is usually elevated. Roentgen evaluation provides the best approach and may reveal an elevated hemidiaphragm on the affected side. It must also be mentioned there are false positives, as several lesions may elevate the diaphragm. Additional information via fluoroscopy may be gained if diminished excursion is noticed on the suspected side. One highly significant sign is the presence of gas and an air-fluid level within the cavity. This, however, occurs only in 20% of the cases.[2]

As early as October 1953, a new approach in the diagnosis of liver neoplasms was unveiled which was to be the forerunner of present day liver-lung scanning for subdiaphragmatic abscess. This method, developed by Stirrett, Yuhl and Cassen[3] used I^{131}-labeled human serum albumin (I*HSA) and a scintillation counter commonly used in thyroid scanning. The problems arising from this procedure centered around many false positives in patients with hepatitis and cirrhosis complicated by ascites. Efforts to eliminate the source of error involved development of materials more selectively concentrated in the liver, such as radioactive tetraiodophenolphthaleins, diiodofluorescein and colloidal gold (Au 198). The high affinity of the liver for colloidal or particulate matter led to the acceptance of Au 198 as the agent of choice. This development, coupled with a refinement of the scintillation counter, led to good results in the scanning of 22 patients with proved metastatic carcinomas within the liver. Nineteen of the 22 patients showed areas of decreased radiosensitivity corresponding to areas of involvement. Three patients with lesions less than 2 cm. in diameter did not demonstrate decreased areas of radiosensitivity. One patient not included in the 22 with proved carcinoma, but suspected of having a primary liver tumor, demonstrated a large space-occupying lesion in the right lobe which subsequently proved to be a hepatic abscess.[3]

In spite of the success described, problems remained to be solved. The Au 198 was sequestered by the reticular endothelial system, particularly the liver, and was a potential source of prolonged exposure to radioactive material. Carefully controlled doses were used to minimize the source of danger. The other problems centered around visualizing smaller lesions within the liver.

In 1964 Taplin, Johnson, Dore and Koplan[4] provided a way of controlling the particulate size of the I*HSA by careful pH adjustment at pre-

cise temperatures. The particulate size varied from colloidal particles of 10 to 20 micromicrons to those of 1 to 5 microns. Extensive physiologic studies indicated that by varying the particulate size and controlling the times involved, multiple organ systems could be studied, namely the liver, spleen, lungs and stomach, during one study.

It was shown that particles of the approximate one micron size and less were 90% quickly sequestered in the liver by phagocytosis, while particles of the 1.0 micron to 2.5 micron size are initially mechanically trapped by the lungs and partially metabolized, then slowly released to be later phagocytized by the reticular endothelial system.

The significant advantage of this colloidal I*HSA over the original labeled serum albumin is the rapid metabolism of the smaller particles by the Kupffer cells of the liver providing for rapid urinary excretion of the now "free" I^{131}, all within 72 hours. This is 100 times less exposure than that of the Au 198 previously mentioned.[4]

The development of these techniques has led to the simultaneous injection of I^{131} labeled macroaggregated human serum albumin as reported by Brown.[5] He described 13 combination liver and lung scans on 10 patients. Three of these patients had subdiaphragmatic abscesses and were described in detail in the article. Two of the patients had serial scans and two scans were run on a patient who had undergone hemihepatectomy. The seven other patients tested gave no false positives, nor were any false negatives reported at that time. Included in his article are photographs of the three cases reported, and there is obvious visual evidence of lack of radiosensitivity, even to the untrained eye, over the areas seen on both posteroanterior and lateral scans. One of the cases depicted a lesion that upon surgical drainage contained but 300 cc. of purulent material, suggesting a rather remarkable sensitivity in relation to older techniques.

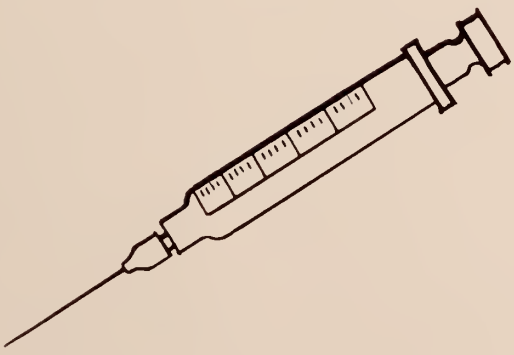
Summary

The evolution of a new and refined technique for the diagnosis of a lesion which has eluded and still eludes diagnosis by the inquiring clinician is described. With the use of this combined study it appears that much can be done to decrease the 40% mortality rate associated with subphrenic abscess.

References

1. Cole, W. H., and Zollinge, R. M.: Textbook of Surgery, ed. 8, Appleton-Century-Crofts, Inc., New York, 1963, p. 799.
2. Cole, W. H., and Elman, R.: Textbook of Surgery, ed. 7, Appleton-Century-Crofts, Inc., New York, 1959, p. 804.
3. Stirrett, L. A.; Yuhl, E. T., and Cassen, B.: Clinical Applications of Hepatic Radioactivity Surveys, American Medical Journal Gastroenterology 21:310-315, 1954.
4. Taplin, G. V.; Johnson, D. E.; Dore, E. K., and Kaplan, H. S.: Suspensions of Radioalbumin Aggregates for Photoscanning the Liver, Spleen, Lung and Other Organs. J. Nuclear Medicine 5:259-274, 1964.
5. Brown, D. W.: Combined Lung-Liver Radioisotope Scan in the Diagnosis of Subdiaphragmatic Abscess, Am. J. Surg. 109:521-525, 1965.

Mr. Whitley, University of Miami School of Medicine, Miami 33136.



Fibrinolysis
Clinical Implications

JAMES P. NOBLE

At least since the time of Morgagni's observation in 1769 of the fluidity of cadaver blood, the overt manifestations of fibrinolysis have been observed and recorded. Hunter in 1794 brought in the stress factor when he noted, "In many modes of destroying life the blood is deprived of its power of coagulation, as happens in sudden death produced by many kinds of fits, by anger, electricity . . . or by a blow on the stomach. . . ." In 1893 Dastre gave the phenomenon its name when he used the term "La Fibrinolyse" to describe the spontaneous lysis of clots from dogs in severe shock, here again bringing in the relationship to stress. That the blood in such cases lacked fibrinogen was shown by Morawitz in 1906. He suggested the existence of an enzyme which had digested the fibrin. The tissue destruction effect on fibrinolysis was brought out by Whitehouse (1914), who described the fluidity of menstrual blood as being due to fibrinolysis initiated by release of a tissue enzyme. Demuth and Von Riesen in 1928 postulated the activation of a proenzyme in the blood by a tissue enzyme.[3,4]

One of the biggest breakthroughs in the elaboration of the system came in 1933 with the isolation of streptokinase from bacterial culture. Milstone (1941) showed that streptokinase lyses fibrin only if a small amount of the euglobulin fraction of normal human serum is added. Streptokinase became the model of the activator for the system, and in 1945 Christensen and McLeod proposed a terminology consisting of an activator, plasminogen, the proenzyme in the plasma; plasmin, the active fibrinolytic enzyme, and antiplasmin, the inhibitor protein found in the albumin fraction of plasma. The existence of antiplasmin was substantiated by Chakrabarti and Frarnley in 1962 when they noted that dilution of blood reduced inhibition of fibrinolysis. This observation followed the hypothesis of Frarnley and Tweed in 1953 that spontaneous fibrinolytic activity is a property of normal blood. At about the same time, Nolf suggested that fibrin formation occurs normally on certain cell surfaces in contact with blood and that this effect is counteracted by fibrinolysis. Thus, Nolf pointed to the interrelationship of fibrinolysis and the coagulation mechanism.

Mechanism and Function of Fibrinolysis

Johnson and Newman[1] elucidated three stages in the production of fibrinolysis:

1. Streptokinase or kinases from tissue and plasma react stoichiometrically with plasminogen (proactivator) to form an activator complex.
2. The activator complex like the naturally occurring activators in tissues, plasma and urine (urokinase) reacts enzymatically with plasminogen to form plasmin.
3. Plasmin degrades fibrin and fibrinogen, and some other proteins as well (accelerator globulin, some components of serum complement, beta lactoglobulin, glucagon, somatotrophin, corticotrophin, . . .).

Current theories agree that, under normal conditions, there is little free plasmin in the circulation. Free plasmin is immediately inactivated by an excess of circulating antiplasmin, and the plasmin-antiplasmin complex continues to circulate in the blood stream. Perhaps, upon contact with fibrin, plasmin is released from this complex

and causes fibrinolysis according to the existing equilibrium between fibrinolysis and coagulation. Whereas the coagulation mechanism promotes hemostasis and possibly provides a fibrin cementum which maintains the continuity of vascular endothelium, it is likely that fibrinolysis preserves patency of the vessels by inducing continuous turnover of this fibrin lining. A disturbance in this equilibrium has even been postulated as a mechanism in the pathogenesis of atherosclerosis.[4] Evidence in favor of this is the increased fibrin and calcium deposition in an atheroma; calcium has been shown to inhibit fibrinolysis.[5]

Normally then, whenever coagulation occurs, with the transformation of fibrinogen to fibrin, plasminogen becomes closely bound to the precipitated fibrin. Within the confines of the thrombus the activator, formed, released or absorbed, activates plasminogen to form plasmin. The protective environment of consolidated fibrin enables this plasmin to escape the inhibiting plasma antiplasmin and thus, to cause gradual dissolution of the thrombus, a mechanism essential to normal hemostasis.

As thrombus formation is primarily a phenomenon of the venous circulation, it also appears that fibrinolysis is most predominant on the venous side. Messer, Celander and Guest (1962) have shown that activator is released from the intima of veins. This observation followed that of Astrup in 1959 who determined that activator is confined to the adventia of the arteries and thus is not directly available to the arterial circulation.

Pathological Fibrinolysis

Whenever traumatic or anoxic injury occurs to venous endothelium or to tissues in general, both the fibrinolytic and the coagulative mechanisms are brought into play by the simultaneous release of tissue activator and tissue thromboplastin.[2] Certain tissues predominate in activator substances while others have greater thromboplastin concentrations. Whichever the case, an upset in the equilibrium is bound to occur.

Primary fibrinolysis occurs whenever a tissue releases enough activator to cause plasmin formation in levels above those of maximum antiplasmin inhibition. Exercise, pyrogens, electroshock, adrenalin, acetylcholine and stress in general cause increased fibrinolysis due to the release of plasma and/or tissue activators. Also, antiplasmin may be reduced below normal limits or there may be a failure to clear activator, and plasmin, by the liver and the reticuloendothelial system.

Paradoxically, secondary fibrinolysis is the end-result of a hypercoagulability of blood which tends toward exhaustion of the coagulative factors (fibrinogen, antihemophilic factor, Factor V, and platelets) with a relative dominance of fibrinolysis (defibrination syndrome).

Examples of Pathological Fibrinolysis

Concealed antepartum hemorrhage in the later stages of pregnancy may cause release of large amounts of thromboplastin from the damaged placenta. When the released thromboplastin has caused almost all of the fibrinogen to be converted to fibrin, then the lytic activator (also released in lesser amounts) causes a generalized hemorrhagic state to ensue. This is an example of defibrination followed by fibrinolysis.

Thoracic Operations: Pleura tissue contains large amounts of activator, and the lung has large amounts of both thromboplastin and activator; the heart-lung machine has a tendency to defibrinate the blood; transfusion of stored blood is deficient in the replacement of the labile coagulation factors. These facts, when grouped with the effects of anoxia and stress in general, make this category of surgery particularly vulnerable to hemostatic complications.

Prostatic carcinoma, especially with metastases, releases large amounts of activator to cause violent lysis as evidenced by massive subcutaneous bruising and bleeding from the primary site.

Administration of streptokinase in the therapy of intravenous thrombosis not only depletes fibrinogen but also produces fibrin and fibrinogen breakdown products which inhibit the polymerization of fibrin and thus cause hemorrhage.

Defibrination and lysis complicate the thrombocytopenia of leukemia.

There is a failure in the manufacture of fibrinogen and in the deactivation of plasmin and activator substance in liver failure.

Some snake venoms cause defibrination.

In thrombocytopenia, a clot formed of fibrin with little incorporation of platelets will be greatly susceptible to lysis because of the absence of the antiplasmin activity found in platelets.

Urokinase, the function of which is to clear the urinary tract of fibrin deposition, can increase

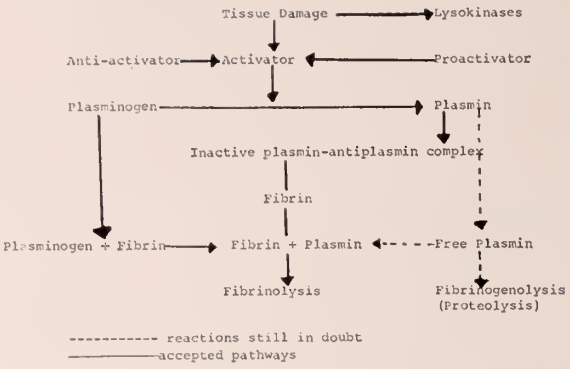


Fig. 1.—The Fibrinolytic Mechanism (After Sharp[2]).

the hemorrhagic complications of urinary tract and prostatic surgery.*

Brain tissue has an abundance of activator which may give rise to prolonged intracranial bleeding.*

Differentiation of Primary Fibrinolysis From the Defibrination Syndrome

In the therapeutic approach to life-threatening fibrinolysis the following fact makes the importance of this differentiation self-evident. As paradoxical as it may seem, the fact remains that hemorrhage occurring in the defibrination syndrome is best treated by the administration of heparin. There is a rational basis and also clinical proof for this approach.[6] The first stage of the defibrination syndrome is massive intravascular coagulation to the point of eliminating virtually all fibrinogen. After this, the second stage comes into play with a normal or slightly hyperactive fibrinolytic mechanism which is able to overwhelm completely what little remains of the fibrinogen-hemostatic mechanism. Hemorrhage occurs easily and without restraint.

Heparin, by blocking the steps of the coagulation mechanism, restores fibrinogen levels toward normal and thereby gives some degree of protection. In this instance, the administration of an antifibrinolytic agent would do nothing to prevent intravascular coagulation from decreasing fibrinogen levels, with a resultant greater propensity toward uncontrollable bleeding. On the other hand, in the case of *primary* fibrinolysis it is apparent that heparin administration could only push hemorrhage on to the irreversible stage.

As an illustration of the foregoing discussion, Mersky[6] reported a case of metastatic carcinoma from the colon complicated by gastrointestinal bleeding, superficial and deep phlebitis and pulmonary emboli. While the patient was in the hospital, a four inch thrombus in a leg vein was observed to disappear overnight. This was taken as clinical evidence of hyperfibrinolysis superimposed on the more obvious hypercoagulability state of thrombophlebitis. Laboratory evidence of defibrination, or of hypofibrinogenemia, as a result of the diffuse thrombophlebitis consisted of "gross impairment of prothrombin consumption and of thromboplastin generation, a marked decrease in circulating fibrinogen, AHF and Factor V and a slight decrease in prothrombin and blood platelets."[6] In the other direction, a greatly increased thrombin clotting time with large decreases in streptokinase inhibitor and plasminogen, and a slight decrease in urokinase inhibitor, all pointed toward an accompanying hyperfibrinolysis.

Heparin was administered and abnormalities of coagulation and fibrinolysis were "corrected to normal or near normal"[6] values which persisted until heparin was discontinued. This result occurred on three separate occasions, and in each instance defibrination developed which was again corrected with the resumption of heparin.

In this particular patient the administration of an antifibrinolytic agent would have been disastrous. Thrombosis would not have been counteracted by lysis, and growth of thrombi, rather than dissolution, would have led to a more rapid death.

There is a place for the judicious use of antifibrinolytic agents, but only in primary fibrinolysis, that is, fibrinolysis occurring with prostatic

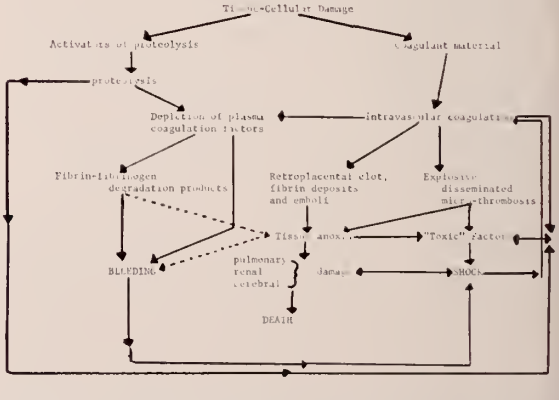


Fig. 2.—Interrelationship between fibrinolysis and coagulation and the defibrination syndrome. (After Sharp[2]).

* In these two cases the institution of antifibrinolytic therapy is usually contraindicated because of the likelihood of urinary tract obstruction in one instance and thrombosis of cerebral arteries in the other.

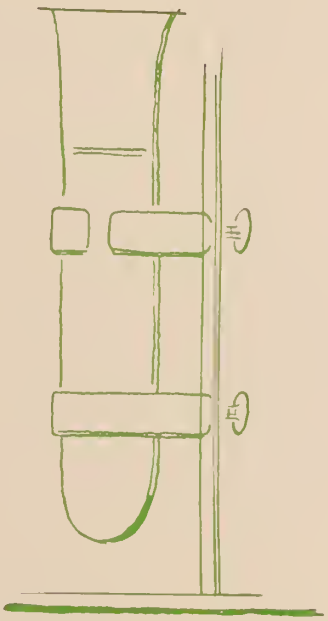
carcinoma. When hypofibrinogenemia is suspected as the cause of bleeding, conservative therapy is indicated until definitive tests can prove whether the cause is defibrination or fibrinolysis. Conservative therapy means replacement of fibrinogen. If this necessitates use of whole blood, it should be borne in mind that stored blood is deficient in several of the other factors required for coagulation.

This mechanism is diagrammatically illustrated by Sharp (fig. 1), lyksokinase in this instance referring to the tissue kinases of Johnson and Newman.[1]

References

1. Johnson, A. J., and Newman, J.: The Fibrinolytic System in Health and Disease, Seminars in Hematology 1:401-431 (Oct.) 1964.
2. Sharp, A. A.: Pathological Fibrinolysis, British Medical Bulletin 20:240-245 (Sept.) 1964.
3. Fraruley, G. R.: Physiology and Pharmacology of Fibrinolysis, British Medical Bulletin 20:185-188 (Sept.) 1964.
4. Macfarlane, R. G.: The Development of Ideas on Fibrinolysis, British Medical Bulletin 20:173-178 (Sept.) 1964.
5. McNicol, G. P., and Douglas, A. S.: e-Aminocaproic Acid and Other Inhibitors of Fibrinolysis, British Medical Bulletin 20:233-239 (Sept.) 1964.
6. Mersky, C.; Johnson, A. J.; Pert, J. H., and Whohl, H.: Pathogenesis of Fibrinolysis in Defibrination Syndrome: Effect of Heparin Administration, Blood 24:701-715 (July-Dec.) 1964.
7. Salzman, E. W., and Britten, A.: Hemorrhage and Thrombosis—A Practical Clinical Guide, Little, Brown and Company, Boston, 1965.

Mr. Noble, University of Miami School of Medicine, Miami 33136.



Types of Idiopathic Thrombocytopenic Purpura and Methods of Treatment

JOHN A. PINKSTON

Many types of thrombocytopenic purpura exist. The diagnosis of "idiopathic" thrombocytopenic purpura, hereinafter denoted as ITP, is made when all of the known causes of this disease state are not present. Such known causes include drug sensitivity (that is, quinine, quinidine, meprobamate and digitoxin), infections (that is, rubella, rubeola, variola or other viral infection), part of a larger and usually more significant disease complex (that is, disseminated lupus erythematosus and myeloproliferative disorders), food sensitivity and secondary to hypersplenic splenomegaly. For practical purposes of treatment, the type of thrombocytopenic purpura following viral infections is the same as that for ITP; treatment for the other types would consist of more specific measures aimed at the underlying cause, that is, discontinuation of drugs, abstinence from ingestion of certain food and so on.

Types of ITP

Basically, there are three recognized types of ITP: acute, acute recurrent and chronic. All are characterized by thrombocytopenia in the range of usually 20,000 per cu. mm. to 50,000 per cu. mm. with normal or even increased numbers of megakaryocytes in the bone marrow, decreased platelet survival time, absence of splenomegaly, leukopenia, or anemia, and the presence of bleeding (petechiae, ecchymoses, blood blisters on mucous membranes and gross hemorrhage).

Acute episodes of thrombocytopenic purpura are more common in children, 85% of patients being below eight years of age.[6] The sex distribution is equal. About one third of cases are idiopathic, the other two thirds giving a clear history of antecedent infection a week or two before the onset of purpura, but it is possible that the truly idiopathic one third may have been secondary to a subclinical viral infection. This possibility deserves further consideration.

The acute recurrent type is extremely rare, only recently being reported.[5] The clinical picture is similar to that of the acute type, but each acute episode is followed by a complete remission with platelet count and platelet survival time returning to normal.

The chronic type predominates in young adults. The proportion of females to males affected is 3:1.[6] There is usually an insidious onset, with a history of easy bruising and prolonged menses with menorrhagia. This type is self-perpetuating and may last for many years. It is characterized by relapses and remissions, with the platelet count never returning to normal levels but remaining at one half to one third of normal. The platelet life span is longer than in the acute form, but is consistently below normal.

The acute type of ITP usually undergoes spontaneous remission in one to 12 weeks. Some patients, however, have required periods of time up to 15 months before the disease regressed. In

approximately 10% of acute cases it does not regress but becomes the chronic, self-perpetuating form. At the time of onset of symptoms, it is impossible to differentiate this latter 10% from the 90% in which the disease will undergo spontaneous remission.

Mechanisms of the Thrombocytopenia and Purpura

Present evidence indicates that the mechanism of the thrombocytopenia in ITP results mostly from increased destruction of platelets rather than decreased production in the bone marrow. The precise mechanism appears to be an immune one; antibodies to platelets appear in the plasma which sensitize the platelets, and these platelets are then sequestered by the spleen and liver. In some cases, for reasons which are not well understood but involve the degree of sensitization of the individual platelet, the sequestration occurs more frequently in the liver than in the spleen. It has been shown that the spleen also is an important site of antibody production in this disease, thus playing a dual role.[1]

Bone marrow studies in this disease usually demonstrate a hyperplasia of megakaryocytes. Fluorescein antibody studies show that megakaryocytes are also attacked by the antiplatelet antibodies since there are antigenic similarities between platelets and megakaryocytes, resulting in ineffective platelet production.

The purpura occurring in this disease results from damage to the endothelium of capillaries. The same antibodies which attack the platelets apparently attack the endothelium of the capillary wall resulting in the various forms of bleeding mentioned earlier. If serum from a person with ITP is injected into the blood stream of an undiseased recipient, thrombocytopenia will ensue, but usually not purpura. If the serum is injected intradermally, ecchymoses appear in the region of the injection, but thrombocytopenia does not occur.[1,7]

Methods of Treatment and Indication for Splenectomy

The primary aim of therapy in ITP is to arrest the bleeding and not to raise the platelet count. Although the two usually go together, this is not invariably the case. Platelet factor 3 is essential for blood coagulation, but apparently there is enough of this present, and bleeding and coagulation times are usually normal. The rationale, and obviously beneficial effect, of transfusing platelets in the form of fresh whole blood or platelet suspensions lie in the fact that if there are more platelets in the patient's blood stream, more antibodies will adsorb to the platelets, and fewer will be left to damage capillary endothelium. Platelets transfused into a person with ITP rapidly disappear and bleeding promptly starts again. There is no doubt that in the acute episodes of this disease transfusions are indicated to replace blood loss and to supply fresh platelets.

The two basic forms of therapy in ITP are: the use of adrenocorticosteroids and of splenectomy.

For many years the only treatment for ITP was splenectomy, which was first performed for this disease by Kaznelson at Prague in 1916. Following splenectomy, sustained remissions will occur in approximately 60% of cases, 10% to 20% will respond with a temporary elevation of the platelet count which lasts only a few weeks, and 10% to 20% show no elevation of the platelet count. Unfortunately, the effects of splenectomy cannot be predicted. As mentioned earlier, the liver in some cases more actively sequesters platelets than the spleen. It has been shown, however, that this affords no basis for prediction since some patients with greater liver sequestration obtain complete remissions, whereas others with greater splenic sequestration do not respond to splenectomy.[1]

Following splenectomy, a dramatic increase in the platelet count occurs within the first 24 hours. Bleeding stops a few hours after the operation. Splenectomy has been used as an emergency procedure to stop hemorrhage in ITP for these reasons. The most dreaded effect of the bleeding in ITP is brain hemorrhage, since uncommonly is there sufficient bleeding to produce shock and cardiac effects, and immediate treatment is necessary.

Since the advent of adrenocorticosteroids, cortisone and ACTH have been used in the treatment of ITP. Like splenectomy, treatment with these substances suppresses sequestration of antibody-coated platelets and reduces the titer of the autoantibody. Doses as high as 250 mg. of prednisone have been given with good results, with cessation of bleeding and a rise in the platelet count occurring in three or four days following the first dose. The effect is usually a function of dosage. After the therapeutic effect has been attained, low doses are administered as a "maintenance" therapy, usually in the range of from 5

to 10 mg. per day. In persons who must take larger doses of steroids to sustain remission signs of Cushing's syndrome may develop, which is the chief objection to the use of steroids.

In the first acute episode of ITP it is impossible to tell whether the disease will progress to the chronic form, and steroids should be administered. In children and young adults especially, the likelihood of progression to chronicity is remote (10%) and the disease will undergo spontaneous remission. Hence, steroids control bleeding until this occurs. Splenectomy probably should not be performed on this group as an initial procedure, but a period of steroid therapy up to 14 or 15 months has been recommended if the maintenance dosage is low enough.[9]

Present evidence indicates that splenectomy should probably not be withheld in the chronic form of ITP, however. There is no evidence that prednisone induces a remission. Results with splenectomy are far better in this group than long term administration of steroids. From the work of Doan et al.[6] it can be concluded that overall results would be better if splenectomy is performed as soon as the diagnosis of chronic ITP is made.

Conclusions

Probably all acute episodes of ITP should be treated with prednisone, since most cases are not chronic and will undergo remission on this therapy alone. As soon as it becomes apparent that the disease is chronic, splenectomy is indicated.

References

1. Baldini, M.: Idiopathic Thrombocytopenic Purpura, New England J. Med. 274:1245-1251, 1301-1305, 1360-1367, 1966.
2. Bunting, W. L.; Kiely, J. M., and Campbell D. C.: Idiopathic Thrombocytopenic Purpura, Treatment in Adults. Arch. Int. Med. 108:733-738 (Nov.) 1961.
3. Cohen, P., and Gardner, F. H.: The Thrombocytopenic Effect of Sustained High-Dosage Prednisone Therapy in Thrombocytopenic Purpura, New England J. Med. 265:611-617, 1961.
4. Dameshek, W.: "I.T.P."—Tricky Disease, M. Clin. North America 46:1135-1140 (Sept.) 1962.
5. Dameshek, W.; Ebbe, S.; Greenberg, L., and Baldini, M.: Recurrent Idiopathic Thrombocytopenic Purpura, New England J. Med. 269:649-653 (Sept. 26) 1963.
6. Doan, C. A.; Bouroncle, B. A., and Wiseman, B. K.: Idiopathic and Secondary Thrombocytopenic Purpura. Clinical Study and Evaluation of 381 Cases Over a Period of 28 Years, Ann. Int. Med. 53:861-876 (Nov.) 1960.
7. Harrington, W. J.; Minnich, V.; Hollingsworth, J. W., and Moore, C. V.: Demonstration of Thrombocytopenic Factor in Blood of Patients With Thrombocytopenic Purpura, J. Lab. & Clin. Med. 38:1-10 (July) 1951.
8. Miale, J. B.: Laboratory Medicine—Hematology, ed. 2, The C. V. Mosby Co., St. Louis, 1962, pp. 712-721.
9. Sandusky, W. R.; Leavell, B. S., and Benjamin, B. I.: Splenectomy: Indications and Results in Hematologic Disorders. Ann. Surg. 159:695-710 (May) 1964.
10. Schulman, I.: Diagnosis and Treatment: Management of Idiopathic Thrombocytopenic Purpura, Pediatrics 33:979-980 (June) 1964.

Mr. Pinkston, University of Miami School of Medicine, Miami 33136.





Scientific Section

Student Research Papers

University of Florida

College of Medicine

The papers published in the following pages are the work of students of the University of Florida College of Medicine, which was initiated during a course entitled "Experimental Medicine." The papers represent a fair sample of what a medical student can achieve in the area of experimental medicine under active faculty guidance. The faculty of the College of Medicine believes that the experience of becoming engaged in the active search for new knowledge represents an important element in the educational process towards becoming a physician. The purpose of our course in Experimental Medicine is not to make investigators or scientists of the medical students, but rather to permit every student to experience, first hand, the kind of effort and intellectual discipline that is necessary to conduct an investigation. As far as we can judge, this experience greatly widens the student's horizons and puts him in a better position to judge scientific publications for himself.

Some of the students decide, after this experience in the second year of their residence in medical school, to continue their investigations on a part time basis throughout medical school. Others will never again be engaged in such an endeavor although it is hoped that they will employ a similar scientific method when they are faced with the resolution of problems brought to them by their patients.

We sincerely hope that the readers of the Journal enjoy this contribution by our future physicians. We also hope that it gives them an insight into what we believe to be one of the foundations of medicine, namely, fundamental knowledge arrived at by the scientific process.

Emanuel Suter, M.D.
Dean, College of Medicine
University of Florida

Organic Phosphate Insecticides as Teratogens in the Rat

PATRICK K. DOBBINS

The organic phosphate ester insecticides are widely employed in commercial preparations. The toxicity of these compounds results chiefly from their essentially irreversible inhibition of acetylcholinesterase resulting in accumulation of acetylcholine at cholinergic sites. The cause of death is primarily respiratory failure, usually accompanied by a secondary cardiovascular component.[1]

McLaughlin et al.[2] reported malathion as lowering the per cent hatch and producing embryonic abnormalities (short legs, bleaching effect on down) in the chick embryo. Roger et al.[3] found that nicotinic acid analogs alleviated the teratogenic and neurotoxic effects of organophosphates on chick embryos, suggesting that the teratogenic effects are unrelated to the inhibition of acetylcholinesterase activity in the nervous system. Khera et al.[4] noted degenerative change in skeletal muscles and growth retardation in ducklings treated prior to hatching with EPN or Systox. Ghadiri et al.[5] reported a general correlation between the maximum quantity of pesticide which permitted some chicks to hatch and the average acute oral toxicity for mice, and also that combinations of organophosphorus compounds produced teratogenic effects. Marliac et al.[6] showed toxicity to the chicken embryo of several pesticides, including malathion, to correlate well with rat data. Diazinon, however, was found to be about 300 times more toxic to the chicken embryo than to the adult rat. Review of the literature revealed no data concerning the effects of organophosphate anticholinesterase agents on the developing mammalian fetus.

Diazinon, an orthothiophosphate related to parathion, was selected for investigation of its effect on rat fetuses since it is very toxic to the chicken embryo. Malathion was selected because of its wide commercial employment and its milder toxicity to the rat. Apparently, Diazinon and malathion do not demonstrate neurotoxicity, that is, neuronal degeneration associated with demyelination, as do some other organophosphorus compounds.

Materials and Methods

Acute toxicity data were obtained by dosing Wistar rats by stomach tube. Appropriate dilutions were then made from the stock solutions: Diazinon 4E solution (475 mg. Diazinon/ml.) and Malathion Solution-9 (900 mg. malathion/ml.). Diazinon 4E is water-soluble and all dilutions were made with water. Malathion Solution-9 is not water-soluble and was therefore diluted with Mazola 100% Corn Oil. Water controls were used in the acute toxicity experiments. All doses consisted of 1 ml. of proper dilution administered by stomach tube.

Pregnant animals were dosed in the same manner on the appropriate day of pregnancy. The doses ranged from minimal to nearly maximum sublethal dose. The controls received no treatment.

The fetuses were delivered by sacrificing the mother with ether on day 20 of gestation,—12 to 24 hours before expected delivery. The abdominal wall was opened so as to remove both uterine horns. The mother's body weight, appearance, and liver, kidney, spleen and adrenal weights were recorded. The appearance of the placentas and the number of resorptions were noted. The

Sponsor: William A. Little, M.D., Department of Obstetrics and Gynecology, College of Medicine, University of Florida, Gainesville.

Table 1.—Maternal Toxicity of Diazinon

Total Dose (mg.)	Dose Days	Average Dose/Day (mg./kg.)	Number of Animals	Maternal Death %	Average Maternal Total Weight Gain of Survivors (grams)
Control (None)	—	—	7	0	121
27.5	9	95.2	8	37.5	99.2
25	9	89.9	3	33.3	117
20	9	70.6	2	0	121
20	10	63.5	1	0	151
15	9	63.8	1	0	91
15	10	52.6	1	0	153
20	12-15	16.5	2	0	117
10	12-15	6.6	1	0	185
25	8-12	17.3	2	50	151
12.5	8-12	9.0	2	0	137

fetuses were examined for malformations in the manner described by Wilson.[7] The fetuses were grossly examined for abnormalities, movements, reflexes and sex, and then weighed. Two out of every three fetuses were placed in Bouin's solution for approximately two weeks in preparation for cross-sectional analysis. One out of three was fixed in 95% ethyl alcohol for approximately one week, then deviscerated and placed in 1% KOH solution for clearing. When this process was complete, the fetuses were placed in Alizarin Red-S solution until the skeleton was stained properly; they were then removed, placed in H_2O and examined for skeletal abnormalities.

After the fetuses had been preserved in Bouin's solution, they were sectioned by the free-hand razor blade technique. The extremities were first removed. One millimeter coronal sections of the head were made. The neck was then discarded, because of difficulty in detection and rarity of malformations in this area as well as in the extremities. One millimeter cross sections were made of the thorax. Then 2 mm. sections were made until the kidneys were reached. An effort was made to cut through the renal pelves bilaterally. The pelvic viscera were removed, the sex determined and the condition of the ureters observed. All sections were examined under the dissecting microscope. Attention was focused on the soft tissues for detection of abnormalities.

Results

The acute toxicity experiments were performed on nonpregnant female Wistar rats from the Albino Farms. All animals given over 106 mg./kg. body weight Diazinon died, whereas all given under 47 mg./kg. survived. The estimated LD_{50} of Diazinon in pregnant Wistar rats is approximately 97 mg./kg. All animals given over 476 mg./kg. malathion died, whereas all given under 339 mg./kg. survived. The estimated LD_{50} of malathion in pregnant Wistar rats is approximately 370 mg./kg.

With the toxicity data, the doses were adjusted so as to move from minimal to approach the maximum sublethal dose.

Diazinon

Maternal Toxicity (Table 1).—At the lower doses (10 and 12.5 mg. total dose) no significant maternal effects were noted. At 20 mg. total dose, days 12 to 15, however, the average maternal total gain in weight was minimally below the control level. At 25 mg. total dose, days 8 to 12, there was 50% maternal death. One animal died when it reached a total dose of 47 mg./kg., a much lower dose than usually noted for toxicity. With the single doses on days 10 and nine, the average maternal total gain in weight generally decreased with increased dose, while the maternal death rate increased.

Fetal Toxicity (Table 2).—The average fetal weight was low at the highest dose level (95.2 mg./kg., day nine), but otherwise showed no apparent relationship to dose level. The per cent resorptions was not increased at doses approaching the maximum sublethal dose. The per cent resorptions was low (4.3%) at 70.6 mg./kg. on day nine, but high (16.7%) at 63.8 mg./kg. on day nine. A dose of 52.6 mg./kg. on day 10 yielded no resorptions, but a dose of 63.5 mg./kg. on the same day yielded 21.4% resorptions. In the

Table 2.—Fetal Toxicity of Diazinon

Total Dose (mg.)	Dose Days	Average Dose/Day (mg./kg.)	Number of Animals	Total Implantations	Resorptions %	Total Live-born	Average Fetal Weight
Control (none)	—	—	7	76	3	74	3.97g
27.5	9	95.2	5	62	3.2	60	3.45
25	9	89.9	2	27	3.7	26	3.99
20	9	70.6	2	23	4.3	22	3.96
20	10	63.5	1	14	21.4	11	4.35
15	9	63.8	1	12	16.7	10	3.62
15	10	52.6	1	13	0	13	3.85
20	12-15	16.5	2	24	12.5	21	4.39
10	12-15	6.6	1	12	0	12	4.15
25	8-12	17.3	2	13	15.4	11	3.65
12.5	8-12	9.0	2	26	0	26	3.77

multiple dose animals, the higher doses yielded a higher per cent of resorptions.

Fetal Malformations (Table 3).—There were no malformations in the control animals. The greatest per cent of malformations occurred in one litter given 63.8 mg./kg. on day nine. The average maternal total gain in weight was low as well as was the average fetal weight. The per cent resorptions here was high. Higher doses on the same day, however, yielded a much lower per cent abnormal. A higher incidence of urinary malformations existed in the multiple dose animals.

Malathion

Maternal Toxicity (Table 4).—At doses approaching the maximum sublethal dose, the average maternal total gain in weight was conspicuously low (75.2 g). One animal (50% of the eight to 12 dose group) died after 339 mg./kg., the lowest lethal dose administered.

Fetal Toxicity (Table 5).—The animal which received the highest dose in the experiment (475.2 mg./kg.) survived. The fetuses were somewhat small (3.73 g/avg) and the malformation rate was moderate (9.1%). There were no resorptions, however. The average fetal weight was low and the per cent resorptions high in the highest dose group (average 355.7 mg./kg. on day nine).

Fetal Malformations (Table 6).—The greatest per cent of malformations occurred in the group that received 205.4 mg./kg. average total on day 10. There were no resorptions at this dose and the average fetal weight was not low. The per cent abnormal in the higher dose single day groups was greater than in the multiple day dose groups.

Discussion

The average maternal total gain in weight was low at the higher doses approaching the maximum sublethal dose with both drugs. Also the average fetal weight did not seem to be directly related to the average maternal total gain in weight or to per cent of resorptions. The per cent abnormal did not seem to be related to the per cent resorptions or the average fetal weight. There was only one case (63.8 mg./Diazinon, day nine) where the average maternal total gain in weight was low, the per cent resorptions high, the average fetal weight low and the per cent abnormal high.

The malformations that were noted, especially hydronephrosis and hydroureter, were generally mild, never severe, and the incidence was not strikingly high, although definitely above the control level. These were not major soft tissue abnormalities as one would expect from definitely teratogenic compounds. The skeletal abnormalities were seen only in Diazinon, and mainly in one litter, and yet not with higher doses on the same day, suggesting spurious results here. There were no skeletal malformations in the control fetuses, nor has it been the experience in our laboratory to find significant skeletal or soft tissue abnormalities in 50% ethyl alcohol and water treated animals on the same dose days. The type and lack of severity of these abnormalities suggest that they may be more a result of pharmacologic toxicity than outright morphologic teratogenicity.

It is possible that the drugs are not crossing the placenta, and if they are, perhaps they are being hydrolyzed or metabolized by the fetus.

Table 3.—Diazinon: Fetal Malformations

Total Dose (mg.)	Dose Days	Average Dose/Day (mg./kg.)	Total Live-born	Soft Tissue % Abnormal	Skeletal % Abnormal	Description of Abnormalities
Control (none)	—	—	74	0	0	
27.5	9	95.2	60	4.8	0	Hydronephrosis, hydroureter
25	9	89.9	26	0	12.5	Rudimentary 14th rib
20	9	70.6	22	6.25	0	Hydroureter
20	10	63.5	11	0	0	
15	9	63.8	10	14.3	100	Hydroureter, irregular bone contours, hypocalcification, short ribs, wavy ribs
15	10	52.6	13	0	0	
20	12-15	16.5	21	13.3	0	Hydronephrosis, hydroureter
10	12-15	6.6	12	37.5	0	Hydronephrosis, hydroureter
25	8-12	17.3	11	0	0	
12.5	8-12	9.0	26	0	20	Irregular ribs, short and wavy ribs

Table 4.—Malathion: Maternal Toxicity

Total Dose (mg.)	Dose Days	Average Dose/Day (mg./kg.)	Number of Animals	Death %	Average Weight Gain of Survivors (grams)
Control (none)	—	—	7	0	121
112	9	440.1	2	100	—
100	9	355.7	8	37.5	75.2
75	9	283	3	0	128
56	9	190.7	2	0	110.5
56	10	205.4	2	0	107.5
140	8-12	105.2	2	50	140
112	12-15	107.7	2	0	117

Table 5.—Malathion: Fetal Toxicity

Total Dose (mg.)	Dose Days	Average Dose/Day (mg./kg.)	Number of Animals	Total Implan-tations	Resorptions %	Total Live-born	Average Fetal Weight
Control (none)	—	—	7	76	3	74	3.97g
100	9	355.7	5	54	24.1	41	3.79
75	9	283	3	41	2.4	40	4.32
56	9	190.7	2	26	53.8	12	3.68
56	10	205.4	2	21	0	21	4.05
140	8-12	105.2	1	16	0	16	3.73
112	12-15	107.7	2	24	4.2	23	4.50

Table 6.—Malathion: Fetal Malformations

Total Dose (mg.)	Dose Days	Average Dose/Day (mg./kg.)	Total Live-born	Soft Tissue % Abnormal	Skeletal % Abnormal	Description of Abnormalities
Control (none)	—	—	74	0	0	
100	9	355.7	41	10	0	Gross edema of body, mild hydrocephaly, hydroureter, hydronephrosis, "cystic kidneys"
75	9	283	40	18.5	0	Hydronephrosis, hydroureter
56	9	190.7	12	0	0	
56	10	205.4	21	20	0	Hydronephrosis, hydroureter
140	8-12	105.2	16	9.1	0	Hydronephrosis, hydroureter
112	12-15	107.7	23	6.3	0	Hydronephrosis, hydroureter

Indeed, there may be high cholinesterase activity in the placenta or fetal blood vessels[8] which might effectively prevent the accumulation of toxic or teratogenic amounts of anticholinesterase. It is also possible that the compounds are crossing the placental barrier and are significantly inhibiting fetal cholinesterases. Indeed, the acetylcholine-acetylcholinesterase system might not be important in the development of the rat fetus. Investigation of developing embryos, however, revealed that structural and functional maturation of the central nervous system as a whole is accompanied by an unusually high rate of cholinesterase synthesis in contrast to oxidative enzymes. Within the CNS, a demonstrable amount of the enzyme in various regions appears at different stages of neurogenesis. In general, these chemical events may correlate well with the events of morphological and functional differentiation within the CNS. Indeed, Shen[9] suggested that cholinesterase synthesis and myoneural differentiation are an integral system. All fetuses at cesarean section demonstrated apparently normal movements and reflexes. There was no obvious functional impairment. Had the fetuses been allowed to be delivered spontaneously, however, their functional development could have been observed in much greater detail. Perhaps different results would be obtained from some other organophosphates (such as DFP) with known associated neurotoxicity.

Diazinon — (0,0)-Diethyl-(0)-(2-isopropyl-4-methylpyrimidyl-6-) thiophosphate. Geigy Agricultural Chemicals.
Malathion — (0,0-Dimethyl-S-(1,2-dicarboethoxyethyl) dithiophosphate). Florida Agricultural Supply Company.

Summary

Wistar rats were administered Diazinon and malathion in order to determine the teratogenic effects of these organophosphorus insecticides. Doses were administered by stomach tube on day(s) eight to 12, 12 to 15, nine and 10. The number of animals in this experiment was small; this was only a screening test for teratogenic effects. The gross morphological malformations noted were not dose-related; rather, they were inconsistent and mild. Malformations may be related to the drugs or the solvents, since the drugs were not available in pure form.

References

1. Goodman, L. S., and Gilman, A.: The Pharmacological Basis of Therapeutics, The Macmillan Co., New York, 1965 p. 453.
2. McLaughlin, J. Jr., et al.: The Injection of Chemicals Into the Yolk Sac of Fertile Eggs Prior to Incubation as a Toxicity Test, Toxic, Appl. Pharmacol. 5:760-771 (Nov.) 1963.
3. Roger, J. C.; Chambers, H., and Casida, J. E.: Nicotinic Acid Analogs: Effects on Response of Chick Embryos and Hens to Organophosphate Toxicants, Science 144:539-540 (May) 1964.
4. Khera K. S., et al.: Toxic Effect Induced by Inoculation of EPN and Systox into Duck Eggs, Toxicol. Appl. Pharm. 7:488 (May) 1965; abstr.
5. Ghadiri, M., et al.: Toxicity and Biological Effects of Malathion, Phosdrin, and Sevin in the Chick Embryo, Toxicol. Appl. Pharm. 7:484 (May) 1965; abstr.
6. Marliac, J. P., et al.: A Comparison of Toxicity Data Obtained for Twenty-One Pesticides by the Chicken Embryo Technique with Acute, Oral LD_{50}'s in Rats, Toxicol. Appl. Pharm. 7:490 (May) 1965; abstr.
7. Wilson, J. E., and Warkany, J., eds.: Teratology, Principles and Techniques, University of Chicago Press, Chicago, 1965, pp. 263-277.
8. Perrotta, C. A., and Lewis, P. R.: A Histochemical Study of Placental Esterases in the Guinea Pig and in the Human, J. Anat. 92:110-117 (Jan.) 1958.
9. Shen, S. C.: Changes in Enzymatic Patterns During Development, in A Symposium on the Chemical Basis of Development, pp. 416-432, Edited by Wm. D. McElroy and Bentley Glass, Johns Hopkins Press, Baltimore, 1958.

Mr. Dobbins, University of Florida College of Medicine, Gainesville 32601.

Management of Patients With a Positive Serologic Screening Test For Syphilis

MARY ELIZABETH SEAY

When one studies the area of medical care and patient management, the problem arises concerning the effectiveness of routine screening procedures for large populations. Screening procedures are designed to lead to the detection of unsuspected disease states in persons who would not have been tested if the procedure were used selectively. The results of any screening procedure used routinely, on the other hand, may tend to be ignored in a large number of cases. A study by Clark, Schor, Elsom, Hubbard and Elsom, using 11 tests and procedures included routinely in the periodic health examination, revealed that the examining physicians disregarded, or judged to be noncontributory, over 50% of abnormal screening test findings.[1]

In such instances, not only is the usefulness of the procedure lost, but the cost of medical care is increased with no benefits for the patient. Breslow pointed out that a positive screening test merely indicates a high index of suspicion for some disease condition. It is in no way a substitute for a thorough health appraisal by a physician.[2,3]

Purpose of Study

The purpose of this study is to determine the frequency with which a positive screening test for syphilis, the VDRL, leads either to a positive diagnosis, follow-up, or treatment of syphilis, or to the clear-cut exclusion of this diagnosis.

Sponsor: W. J. Coggins Jr., M.D., Department of Medicine, College of Medicine, University of Florida.

Methods

The group of patients studied was composed of all clinic and hospital patients who had one or more positive serologic screening tests for syphilis in the Shands Teaching Hospital laboratory during 1965. There were 6,890 screening tests done during this year. The cumulative charts of the patients were reviewed and the following data were collected: age, sex and race of the patient; admission and discharge diagnoses; serologic history; any signs or symptoms which might be indicative of syphilis, past or present, patient's and mother's record of abortions, stillbirths or births of children with proven or suspected congenital syphilis; any record of antispirochetal therapy, whether given specifically for this purpose or not, and any information on the disposition or follow-up of these patients with respect to syphilis (table 1). All patients referred to this hospital specifically for syphilis were automatically excluded from the study group. Two patients whose charts

Table 1.—Patient Data Collected

Age, sex and race of patient
Admission and discharge diagnoses
Serologic history
Any signs or symptoms which might be indicative of syphilis—past or present
Patient's and mother's record of abortions, stillbirths, or births of children with proven or suspected congenital syphilis
Any record of antispirochetal therapy, whether given specifically for this purpose or not
Information on the disposition or follow-up of patients with respect to syphilis

could not be obtained and two patients whose charts were grossly incomplete were also excluded. The total number of patients in the final study group was 275.

The patients were first grouped according to age, race and sex. In light of the serologic record, physical signs and symptoms and history, the patients were then classified into one of six groups.

Group I was composed of those who were thought proven not to have syphilis by the following criteria: a positive serologic reaction of low titer which when repeated was negative; or the diagnosis of a collagen disease, in which biologic false positive reactors are frequent.

Group II was composed of those patients having a currently positive serologic test without any suggestive physical findings who were not followed or investigated further. This group was further broken down according to the type of serologic tests they had received. The VDRL is a flocculation test using a nontreponemal antigen which is a very sensitive, but not very specific, test for syphilis, and is used as a screening test. Less sensitive but more specific tests are complement fixation tests, such as the Kolmer or Kolmer Reiter Protein.

Group III consisted of patients with a currently positive serologic response plus physical findings suggestive of syphilis, but in whom the disease was not proven, followed or treated.

Group IV contained patients who had a currently positive serologic response with or without positive physical findings who were given antibiotic therapy adequate for syphilis, but in whom the treatment was given for some other infection. If the treatment was not clearly indicated to be for syphilis, it was considered in this category. In most instances in this group, it was clear that the antibiotic therapy was for an infection other than syphilis.

Group V was composed of those patients in whom syphilis was confirmed, either by inclusion of this disease in the discharge diagnosis or by notification to the referring physician or County Health Department that syphilis was either diagnosed or suspected. These patients were either treated or considered adequately followed up by this disposition. This group included currently, as well as previously, confirmed syphilis.

Group VI included those patients in whom the diagnosis of syphilis was currently made but who were deliberately not treated.

Table 2.—Positive Serologic Screening Tests—Male and Female

Sex	Number of Patients	Per Cent of Total	Total Hosp. Discharges	Per Cent of Total
Males	130	47.3	5,307	46.0
Females	145	52.7	6,224	54.0
Total	275	100.0	11,531	100.0

Table 3.—Positive Serologic Screening Tests—Negro and White

Race	Number of Patients	Per Cent of Total	Total Hosp. Discharges	Per Cent of Total
White	132	48.0	8,681	75.4
Negro	143	52.0	2,838	24.6
Total	275	100.0	11,519	100.0

Table 4.—Patients by Age

Age	Number of Patients	Per Cent of Total
0-9	13	4.7
10-19	18	6.5
20-29	31	11.3
30-39	28	10.2
40-49	47	17.1
50-59	50	18.2
60-69	43	15.6
70+	45	16.4
Total	275	100.0

Results

The data are summarized in the tables that follow. Table 2 shows no significant difference between the number of positive serologic tests in males and females. There is, however, a marked difference between Negro and white patients as shown by table 3. The incidence of a positive serologic screening test for syphilis is three times greater for Negro than for white patients in this hospital. Table 4 is the breakdown by age and shows a fairly even distribution over the age of 20

Table 5.—Patient Classification by Groups

	Group	Number of Patients	Per Cent of Total
I.	Proven not syphilis	37	13.5
II.	Positive serologic test without physical findings—not followed or treated	95	34.5
	Positive Kolmer test	(26)	
	Negative Kolmer test	(12)	
III.	Postive serologic test and physical findings—not proven, followed, or treated	22	8.0
IV.	Positive serologic test or without physical findings—received adequate antibiotic treatment but for infection other than syphilis	27	9.8
V.	Syphilis diagnosed—followed or treated—retrospective or current	89	32.4
VI.	Syphilis diagnosed—not followed or treated	5	1.8
Total		275	100.0

years. It also points out that no age group is unaffected, and indeed all ages are represented. Table 5 shows the 275 patients assigned to one of six groups on the basis of their history and serologic and physical findings.

Of those patients who received no treatment or disposition for treatment, 12 were judged to be in the infectious stage of the disease on the basis of data available in the charts.

Of the 117 patients in Groups II and III, 15 were considered to be terminally ill. The criteria used for this determination were: a diagnosed cancer considered inoperable, metastatic or recurrent; uremia due to an irreversible condition; or death on this admission or within one year thereafter. This distinction was made on the basis that in a patient terminally ill with another disease, treatment of latent syphilis is not necessarily indicated.

Discussion

Patients in Groups II and III must be considered not adequately managed in respect to the diagnosis and treatment of syphilis. Not including those patients judged to be terminally ill at the time, these groups include 102 patients, or 37.1%. The patients in Groups I and V are considered to have been adequately managed; they account for 126 patients, or 45.9%. Patients in Group VI had late manifestations of syphilis and were considered by their physicians as having no further ongoing pathologic damage from the disease; for this reason, they were not treated. Patients in Group IV must be considered fortunate in that they inadvertently received adequate treatment for syphilis. Danehower referred to this phenomenon as "penicillin fallout."[4]

Conclusions

It is concluded from this study that a significant number of patients seen in this hospital have serologic findings, and in many cases physical findings as well, which would indicate the need for a more detailed evaluation to prove or disprove the presence of syphilis. Of these patients, approximately 37% have not received such an evaluation.

References

1. Clark, T. W.; Schor, S. S.; Elsom, K. O.; Hubbard, J. P., and Elsom K. A.: The Periodic Health Examination: Evaluation of Routine Tests and Procedures, Ann. Int. Med. 54:1209-1222 (June) 1961.
2. Breslow, L.: Multiphasic Screening in California, J. Chron. Dis. 2:375-383 (Oct.) 1955.
3. Breslow, L.: Prevention and Control of Chronic Disease. V. Periodic Health Examinations and Multiple Screening, Am. J. Pub. Health, 49:1148-1156 (Sept.) 1959.
4. Danehower, W. F.; Hober, U. M, and Jenkins, B. W.: Penicillin Fallout. . . Menace or Manna? Pennsylvania M. J. 65:572-573 (May) 1962.

▶ Miss Seay, University of Florida College of Medicine, Gainesville 32601.

Unusual Dermatoglyphic Patterns Associated with Abnormal Chromosome Karyotypes

LESLIE C. ELLWOOD

Increased incidence of unusual dermal ridge patterns on the hands has been described in populations with abnormal chromosome karyotypes or affected by teratogenic agents, but the usefulness of abnormal patterns as diagnostic in the individual patient is uncertain. Penrose,[9] in a comprehensive study of the chromosome trisomies and sex chromosome anomalies, described a characteristic dermal pattern for each of the abnormal chromosome syndromes. Achs et al.[1] found unusual dermatoglyphic patterns in rubella embryopathy. Reporting of the dermal patterns in case studies is variable, however, and is often included only as further evidence for a karyotype diagnosis.

The purpose of this study is to determine the diagnostic value of dermatoglyphics as an indication for chromosome studies. This paper includes a comparison of the incidence of certain dermatoglyphic patterns in children with Down's syndrome and normal children; a description of dermal patterns in four children with ovarian dysgenesis (Turner's syndrome), and a case study of a female child with multiple congenital anomalies and an extra C group chromosome.

Materials and Methods

Fingerprint patterns were obtained by inspection or by using an India ink transparent adhesive tape method[2] in which patterns are pressed onto tape after the fingers have been painted with India ink. Patterns were classified as whorl, ulnar loop, radial loop or arch.[6,9] Palms were examined by inspection or by Xeroxing palms painted with India ink for hypothenar and thenar eminence patterns, distal axial triradii, abnormal palmar flexion creases or abnormalities of bony structure.[3,9]

Chromosome preparations were obtained from peripheral blood leukocytes using components of the Difco chromosome culture kit according to the general method of Moorhead et al.[8] The 4:1 methanol acetic acid fixed cells and chromosomes were spread by the flame-dry technique, stained with a basic Giemsa solution and photographed with 35 mm. black and white film using a green filter. The karyotypes were prepared according to the Denver classification.[4]

A clinical and family history, physical examination, and buccal smear and blood film smears for sex chromatin analysis were obtained for the second and third studies.

Table 1.—Per Cent Incidence of Dermatoglyphic Patterns in Down's Syndrome and Control Population

Pattern	Per Cent with Pattern	
	Down's	Control
Radial loop not on II	16 on V	0
Unilateral hypothenar	21	15
Bilateral hypothenar	21	5
Unilateral simian crease	21	0
Bilateral simian crease	53	0
Thenar pattern	0	0
Single joint in digit V	21	0

Sponsor: Howard A. Pearson, M.D., Department of Pediatrics, College of Medicine, University of Florida.

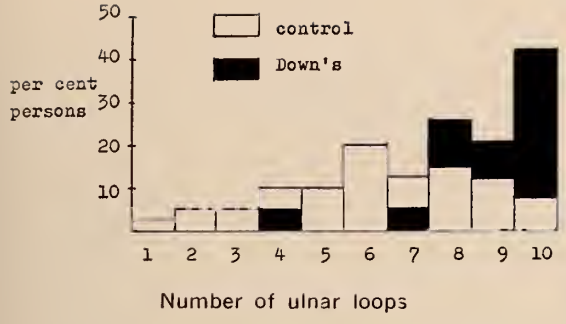


Fig. 1.—Number of ulnar loops per person in Down's syndrome and in control population.

Dermatoglyphics in Down's Syndrome

Data from a study of 19 children with Down's syndrome and 40 normal children are presented as number of ulnar loops per individual in figure 1 and as per cent incidence of other dermatoglyphic patterns in table 1. All these patterns have been described as characteristic of trisomy 21.[9]

The mode for the normal population is 6.0, and the mean is 6.3 ulnar loops per person with a standard deviation of 2.1; the mode for children with Down's syndrome is 10, and the mean is 8.8 with a standard deviation of 3.0. Thirty-five per cent of the normal population has eight or more ulnar loops.

Dermatoglyphic patterns present with much higher frequency in this group of trisomy 21 included radial loop on digits other than II, bilateral hypothenar patterns, simian creases, and absence of one phalangeal bone in the fifth finger. Thirty-one per cent had two or more of these patterns, and 85 per cent had at least one pattern not commonly present in the normal population.

Dermatoglyphics in Ovarian Dysgenesis Report of Cases

Case 1.—H. H. was a 14 year old female presenting most of the features typical of Turner's syndrome,[11] including short stature, lack of sexual development, hypertelorism, webbed neck, cubitus valgus and coarctation of the aorta. Her intelligence was above average. A buccal smear was chromatin-negative, and the karyotype had 45 chromosomes with one X-chromosome missing from the C group. She had nine ulnar loops and one radial loop on digit II of the left hand; there were bilateral hypothenar patterns and a thenar pattern on the right hand. The mother had a mixture of whorls, loops and arches and had no palmar patterns; the father was not available for study.

Case 2.—K. K. was the product of a normal pregnancy and term delivery; her birth weight was 3,320 Gm. and length was 48.3 cm. A congenital hip joint deformity was corrected by nine months of splinting during infancy; no other serious defects or illnesses were described. The patient was a seven year old female with a height of 104 cm. (<< third percentile) and weight of 18 kg. (< third percentile), arm span of 102 cm., stocky build, cubitus valgus, obvious webbed neck, low nuchal hairline, hypoplastic nipples widely spaced on a shield chest, and epicanthal folds. The external genitalia were normal. She walked at 15 months and began to talk when two years old; she did poorly in school and required speech therapy. The chromosome karyotype was 45 XO.

The child had 10 ulnar loops, hypothenar pattern and high axial triradius (Turner t') on the right hand, short fifth digits and spade hands. The mother had seven ulnar loops, two whorls, and one arch, no palmar patterns and slightly elevated axial triradii (normal t). Neither father nor siblings were available for study.

Case 3.—W. F. was a nine year old female with severe psychomotor and growth retardation and multiple congenital anomalies including agenesis of corpus callosum with associated Arnold-Chiari malformation and atrophy. She was the product of an uncomplicated full term pregnancy with a birth weight of 2,809 Gm. and length of 48 cm. Congenital anomalies noted at birth were broad nose with depressed nasal septum, high arched palate with a small defect later repaired by sutures, deviation of the right first toe which had been corrected surgically and marked edema of the extremites.

Physical examination showed a short, obese female 109 cm. tall (< third percentile) and weighing 34.5 kg. (seventy-fifth percentile). The head was dolichocephalic in shape, and there was slight frontal bossing. Widening of the upper portion of the nose and of the medial supraorbital region, prominent epicanthal folds bilaterally and microphthalmia were present. The neck was short and stout, the ears were low set and the teeth were markedly defective. The extremities had large amounts of subcutaneous fat, and the hands and feet were edematous. The external genitalia were normal for a prepubertal female. The medical history revealed frequent middle ear infections requiring medication and occasional urinary infections. Psychological tests indicated an intelligence quotient of 30. The child walked at 21 months and spoke single words at three and one-half years. There were three normal siblings, two females and one male, all younger than the propositus. There was no family history of similar defects.

The patient was a chromosome mosaic with one third of the peripheral lymphocytes having 45 chromosomes and two thirds having a fragment, which had a centromere and which was smaller than the G group chromosomes, in addition to 45 normal chromosomes. The C group had 15 chromosomes. Buccal smear and peripheral polymorphonuclear leukocytes were sex chromatin-negative. The small supernumerary was probably a small deleted sex chromosome,[5] resulting in a karyotype anaylsis of 45 XO/46 XS. Karyotypes of the parents, prepared from peripheral lymphocytes, were normal.

The fingerprint patterns of the siblings and the parents are presented in table 2. The palmar dermatoglyphics of the patient included bilateral distal triradii (Turner t'), bilateral hypothenar loop patterns, partial simian crease on the left hand and short stubby fingers. One female sibling had a unilateral hypothenar pattern, but palmar patterns were not present in the other family members. The patient had a hallucal whorl pattern on one foot. Whorls on her fingers were elliptical with a straight ridge core, while the father's and siblings' were more circular and had a circular ridge core.

Case 4.—C. C. was a 16 year old female presenting with small stature, slow sexual development and primary amenorrhea. She was the product of a full term uncomplicated pregnancy; birth weight was 2,637 Gm. and length was 48.3 cm. No physical abnormalities were noted at birth. Developmental stages in infancy were within normal ranges. At age two, the child was in the tenth percentile for height; by age 13, the height was below

Table 2.—Fingerprint Patterns of Patient and Family

	Right Digits					Left Digits				
	I	II	III	IV	V	I	II	III	IV	V
W. F.	W	W	W	W	W	W	W	W	W	W
Father	UL	W	UL	W	UL	UL	UL	W	W	UL
Mother	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL
L.F.	UL	RL	UL	W	UL	UL	UL	UL	UL	UL
T.F.	UL	UL	UL	W	UL	UL	UL	UL	W	UL
J.F.	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL

UL = ulnar loop W = whorl RL = radial loop

the third percentile and had remained so. Her health had been good except for recurrent, persistent, purulent middle ear infections prior to age 10.

The patient was a short (142 cm.) slightly obese (54.8 kg.) female who had few of the stigmata of Turner's syndrome. A marked 10 to 15° flexure contracture of both elbows had been present since infancy. No webbing of the neck or hypertelorism of the chest was present. The nose was small and had a flattened bridge, the mandible was small, and the hard palate was high and arched. The breast development was minimal with increase of fatty tissue and slight pigmentation of the areolae. The labia majora and clitoris were underdeveloped; the labia minora were absent. Internal genital organs were reported to be normal. Scant pubic and axillary hair was present.

The propositus had a normal 14 year old male sibling. The mother had one spontaneous abortion in the third month when she was 29. There was no family history of anomalies in sexual development. Both the patient and her father had some degree of red-green color blindness.

The peripheral lymphocytes had a chromosome number of 45, with a chromosome missing from the C group. The karyotype was a typical 45 XO. The buccal smear was sex chromatin-positive with 23% of the cells exhibiting a normal Barr body. The number of drumsticks in the peripheral neutrophils was within normal range. A mosaicism of 46 XX/45 XO was indicated.

The patient had eight ulnar loops, a radial loop on right digit II, and one whorl. The triradius was high bilaterally (Turner t'), and a hypothenar pattern was present on the left palm. A simian crease was present on the left hand. The fifth digits were short bilaterally. The mother had eight ulnar loops and two simple arches; a hypothenar pattern was present on the right palm. Triradii and palmar creases were normal. The father and the siblings were not available for study.

Dermatoglyphic Findings in an Unusual 47/46 Chromosome Mosaic

Case 5.—P. T. was an 18 month old female with moderate psychomotor retardation and multiple congenital anomalies including deep creases in palms and soles, small ventricular septal defect, skeletal abnormalities and kidney-urogenital system defects. The child was the product of a normal pregnancy and delivery with birth weight of 2,947 Gm. The height was in the tenth percentile and the weight was in the fifth percentile. She was a chubby, odd-appearing child.

Her head was within normal size range although frontal bossing and hypertelorism were present. She had a small snub nose with depressed bridge and triangular-shaped nares. There was slight ptosis of the right eye with a possible capillary hemangioma; some corneal opacity was evident in both eyes. The external ear helices were buckled in the midportion, and the auditory canals were malformed. The palate was high and arched, the mal-aligned teeth were small and hypoplastic, and the mouth was of the triangular, "fish-mouth" form. She had a short neck with redundant skin folds and a nuchal hairline. The sparse scalp hair was thin and dry. A funnel-shaped depression in the center of the chest was evident; the nipples were wide-spaced. The left shoulder possibly had a Sprengel's deformity of the scapula, and there was scoliosis of the thoracic spine. The patella was absent bilaterally. Hand and wrist x-rays indicated the bone age was that of a 14 month old child. The external genitalia were characterized by small labia and prominent clitoris. Midurethral stenosis, right ureteral reflux and bilateral hydronephrosis without destruction of the calyces were present.

The hands displayed a single deep transverse crease and oblique palmar creases. The left third finger had a flexure-contracture at the first interphalangeal joint. The thumbs were somewhat larger than normal and both fifth fingers were incurved. The fingernails were ridged and irregular. The feet had deep plantar creases that passed radially, paralleling the metatarsal bones, from the middle of the sole to the interphalangeal spaces. The first toes were markedly larger than normal. There was moderate metatarsus adductus.

The medical history included several cyanotic episodes during the first two months, two hospitalizations for pneumonia, and severe otitis media. The propositus had seven normal siblings; the mother had had one spontaneous abortion. A maternal second cousin was described as having multiple congenital deformities.

The peripheral lymphocytes were mosaic. One third had 46 normal chromosomes, and two thirds had 47 chromosomes. The extra chromosome was approximately the size of the C group number 10 chromosome and was somewhat metacentric. Nuclei of the buccal smear were singly chromatin-positive. The patient had nine simple arches and one low ulnar loop, bilateral thenar loop patterns, and normal axial triradii. Family studies were not available.

Discussion

The great variation in phenotypic expression of the chromosome karyotypes within each of the syndromes[5,7] is a problem when evaluating indications for chromosome studies. Abnormal dermatoglyphic patterns can be a useful clue for chromosome anomalies and may be of diagnostic value when presented with karyotypes including possible translocation.

The dermatoglyphics of Down's syndrome are described as including simian creases, a high num-

ber of ulnar loops, radial loops on fingers IV and V, a high axial triradius (mongolism t) and hypothenar patterns.[9] Hypoplasia or aplasia of the middle phalanx of digit V has been described.[10] Data from this study would suggest that while incidence of ulnar loops is increased in a population of trisomy 21, this feature is no indication for chromosome studies. As an example, an infant male orphan with minor variations from normal was referred to this hospital for chromosome studies, because the infant had 10 ulnar loops; the karyotype was normal. The results showed that radial loops on digits IV and V, bilateral hypothenar patterns, simian creases and a single joint on digit V are significant. Normal dermatoglyphic patterns in a child with obvious stigmata of trisomy 21 are possible and were present in 15% of the group studied.

Dermal patterns commonly present in ovarian dysgenesis (45 XO karyotype) are increased incidence of large whorls on the fingers, distal axial triradii (Turner t') and thenar patterns.[9] The four children with ovarian dysgenesis described in this paper all possessed one or more of the less common dermal patterns. The fingerprints were the least reliable as indicators for further studies; H. H. had nine ulnar loops and one radial loop, K. K. had 10 ulnar loops and C. C. had eight ulnar loops, one radial loop and one whorl; none had large whorls. H. H. had bilateral hypothenar patterns and one thenar pattern, K. K. had only a unilateral distal axial triradius and C. C. had bilateral distal triradii and one simian crease. The palmar patterns of H. H. would qualify her for chromosome studies, although not for suspected ovarian dysgenesis; the dermatoglyphics of K. K. could be considered as normal, and the dermal palmar patterns of C. C. indicated possible chromosomal anomaly. The physical findings in H. H. and K. K. were strikingly typical of Turner's syndrome, and C. C. had some of the stigmata of ovarian dysgenesis.

W. F. exhibited 10 large whorls (the parents had four whorls and 16 ulnar loops between them), bilateral distal triradii and bilateral hypothenar patterns; such dermatoglyphics, even without multiple congenital defects, indicate a probable chromosome anomaly. Nevertheless, this first born child of a 21 year old mother, examined by many physicians, did not have even a buccal smear or chromosome analysis until her ninth year and after three siblings were born.

Comparison of W. F. and family's dermatoglyphics showed the marked effect a chromosome abnormality can have on dermal ridge patterns. Inheritance of fingerprint patterns is complex and probably polygenic, but most studies of twins and families indicate inheritance of dermal patterns.[3] The three siblings of W. F. showed patterns expected in offspring of these parents; W. F.'s patterns were markedly dissimilar and were likely the result of the chromosome imbalance.

In the four cases of ovarian dysgenesis discussed, K. K. had normal dermal patterns, H. H. and C. C. had palmar dermatoglyphics not commonly seen in the general population and W. F. had the patterns characteristic of her syndrome. Three of the four should have been examined for chromosome defects on the basis of their dermatoglyphics; all four presented other obvious stigmata. C. C. is an example of a child in whom the positive buccal smear would have indicated a normal sex chromosome complement, whereas the palmar dermatoglyphics reflected the chromosomal abnormality. Many patients with 45 XO karyotype or mosaicism, as in C. C., have minimal expression of the physical signs; a quick examination of hands during general physical examinations of children could provide a clue to a possible sex chromosome anomaly before the age of late puberty, which is several years after hormone therapy should have been initiated.

Case 5 was included in this study as an example of another aspect of the use of dermatoglyphics. The multiple serious congenital defects in P. T. were early recognized as typical of a chromosome abnormality, and she had cells with 47 chromosomes with the extra chromosome of C group size. The child had nine simple arches and one low ulnar loop, bilateral thenar patterns, and one permanently flexed finger. The nine arches and low loop and permanent finger flexure are characteristic of trisomy E, and thenar patterns are seen in trisomy D.[9] The multiple defects are also a combination of stigmata characteristic of both trisomy D and trisomy E. Dermatoglyphics would suggest that the extra chromosome was a result of a translocation involving one or both of these groups. Further studies of the propositus and her family will be necessary for the possible identification of the extra chromosome.

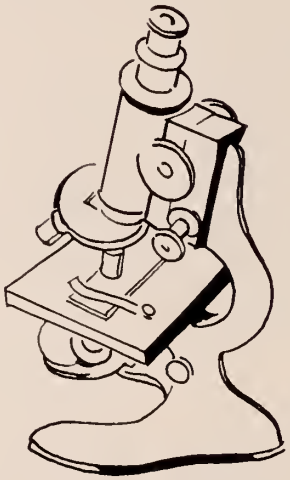
Summary

A study of dermatoglyphics in Down's syndrome, four cases of ovarian dysgenesis and an extra C group size chromosome are described. It is evident that although certain dermal patterns have a higher incidence in a syndrome, the presence of the patterns is variable in the individual patient. Nevertheless, abnormal dermatoglyphics in a child are important clues to possible chromosome anomalies. Fingerprint patterns are not reliable signs, unless they are markedly different from those of parents and siblings. Radial loops on digits other than II, when not found in parents, are indicative of abnormal chromosome complement. Palmar patterns such as bilateral distal axial triradii, bilateral hypothenar patterns and thenar patterns not present in parents should suggest chromosome studies. Occasionally, dermatoglyphics may be of diagnostic importance in determining the origin of extra chromosomal material.

References

1. Achs, R., Harper, R. G., and Siegel, M.: Unusual Dermatoglyphic Findings Associated with Rubella Embryopathy, New England J. Med. 274 (3); 148, 1966.
2. Cotterman, C. W.: A Scotch-tape India-ink Method for Recording Dermatoglyphs, Am. J. Human Genet. 3:3, 6, 1951.
3. Cummins, H., and Midlo, C.: Fingerprints, Palms, and Soles: An Introduction to Dermatoglyphics. New York, Dover Publications, Inc., 1961.
4. Denver Study Group: A Proposed Standard System of Nomenclature of Human Mitotic Chromosomes, Lancet 1: 1063, 1960.
5. Ferguson-Smith, M. A.: Karyotype-Phenotype Correlations in Gonadal Dysgenesis and Their Bearing on the Pathogenesis of Malformations, Journal of Medical Genetics 2, 1965.
6. Federal Bureau of Investigation: The Science of Fingerprints. Washington, U. S. Government Printing Office, 1963.
7. Levinson, A.; Friedman, A., and Stamps, F.: Variability of Mongolism, Pediatrics 16: 43-53 (July) 1955.
8. Moorhead, P. S.; Nowell, P. C.; Mellman, W. J.; Battips, D. M., and Hungerford, D. A.: Chromosome Preparations of Leukocytes Cultured From Human Peripheral Blood, Exp. Cell Res. 20: 613-616 (Sept.) 1960.
9. Penrose, L. S.: Fingerprints, Palms and Chromosomes, Nature 197: 933-938 (Mar.) 1963.
10. Smith, D. W.: Autosomal Abnormalities, Am. J. Obst. & Gynec. 90:1055, 1964.
11. Zellweger, H.; Abbo, G.; Beck, K.; Neunzert, R., and Schner, R.: Autosomal and Sex Chromosomal Aneuploidy: An Exhibit, J. Iowa Med. Soc. 53: 735-752 (Nov.) 1963.

▶ Mr. Ellwood, University of Florida College of Medicine, Gainesville 32601.



Recovery of Biologically Active Viral Ribonucleic Acid From Rat Brain After Intraperitoneal Injection

MICHAEL T. B. DENNIS

Mankind has long been intrigued by the possibility of transferring knowledge and skills from person to person—indeed, from generation to generation, by means other than the written word or by apprenticeship. Recent work in the field of ribonucleic acid-induced learning procedures has added a new dimension to this question. Most pertinent to this presentation is an experiment by Jacobson, Babich and coworkers[1] in which the cerebral ribonucleic acid from rats trained to approach a food cup upon hearing a click sound, when injected into the peritoneal cavity of naive rats, resulted in a significant increase in response over control values. Hyden and Egyhazi[3] reported some reversal of left and right-handedness in rats with a similar procedure but with less convincing data.

Jacobson's paper, whether it withstands the corroborative efforts of other research workers or not, remains the initiating factor in this experiment by strongly suggesting that ribonucleic acid, probably messenger-RNA, is the unit responsible for the transferred response. A review of the literature revealed that no one had tested the possibility of ribonucleic acid passing from the peritoneum into the vascular bed, to the cerebral vessels, again through the endothelial layer and into the brain substance. Tagging the ribonucleic acid with radioactive isotopes would not be sufficient evidence, for one might only be scanning remnants of the active form of ribonucleic acid in the brain. Without question the crucial point was to isolate biologically active ribonucleic acid in the brain tissue, and it was left to Dr. Arthur Koch, of the University of Florida Biochemistry and Microbiology Departments, to devise a method for the achievement of that goal. The concept that follows is that of Dr. Koch; the choices of virus, materials, general procedures, and the errors are those of the author.

Materials and Methods

The Southern Bean Mosaic Virus was chosen as the source of ribonucleic acid for several reasons. The ribonucleic acid complement has a molecular weight of 1.4 million; it is single-stranded, linear, and has no unique base structures.[9] All of these characteristics resemble closely those of messenger-RNA. In addition, the naked ribonucleic acid has an infectivity rate of approximately 15 to 19% that of the protein-encapsulated virus. This is considerably higher than the less than 1% one usually obtains in other viruses.[4] The choice of a plant virus in an experiment with mammals satisfies the unique taste of the scientist for demonstration by the noninherent factor, and the virus can be relatively easily assayed on Kentucky Wonder Wax beans, producing pinhead focal lesions within five to seven days on the mature leaf.

Initially the virus was obtained from Kentucky Wonder Wax bean plants infected for three weeks. The leaves were ground in a food chopper and the sap expressed through a layer of cheese-

Sponsor: W. E. Sanders, M.D., Department of Medicine, College of Medicine, University of Florida.

cloth. The grinding medium consisted of 100 ml. of chloroform, 100 ml. of butanol, 200 ml. of 0.2 M K_2HPO_4, 7.0 Gm. of ascorbic acid and 4 ml. of 5 N NaOH per 100 Gm. of leaf tissue. Sodium dodecyl sulfate and liquefied phenol were used without further purification. Polyvinyl sulfate was used as the ribonuclease inhibitor. Extraction of the viral ribonucleic acid from the protein coat followed the Deener method,[9] which is essentially a hot phenol and detergent process ideally isolating 50 to 60% of the available ribonucleic acid. A concentrated virus suspension containing 1.5% sodium dodecyl sulfate and 0.02 M phosphate buffer, pH 7, was shaken with an equal volume of water-saturated phenol for five minutes at 25°C. The emulsions were broken by centrifugation, and the phenol was removed from the aqueous phases by two or three precipitations of the ribonucleic acid with two volumes of absolute ethanol and one drop per ml. of 3 M sodium acetate, pH 5.1. Dried ribonucleic acid was weighed on a microbalance and resuspended in 1 ml. aliquots of physiological saline, each aliquot representing approximately 1.5 (10^5) plaque forming units.[2] Biuret tests for protein and diphenylamine tests for deoxyribonucleic acid were negative, although protein contaminations of 0.9 to 1.4% are reported.[9]

Twelve male Holtzman rats, weighing approximately 225 gms. each, were used as experimentals. Each was injected intraperitoneally with 1 ml. of physiological saline containing the viral RNA suspension 1.0 cm. caudal to the xiphoid process. With the knowledge that the plasma half-life of ribonucleic acid is about three hours,[5] it was arbitrarily decided to wait 60 minutes after injection before attempting a recovery of the ribonucleic acid. Other rats were allowed to progress for periods of six, 12 and 24 hours. At the end of the predetermined time the animal was lightly anesthetized, an incision made in the thorax, and the cerebral vascular system was perfused through the carotids with physiological saline under a pressure of 25 mm. of mercury. Perfusion lasted six minutes, a duration determined by trial and error which consistently resulted in 10 ± 5 lesions in a 2 ml. perfusate solution collected from the veins at the end of the six minute period. As soon as possible the animal was sacrificed and the skull opened anteroposteriorly and coronally to remove the cerebrum. One gram of tissue was taken from the right lobe along the midsagittal plane. One gram of tissue often represented a great portion of one lobe. The tissue was ground in a sterile mortar and pestle to weaken the connective tissue elements, which were removed by centrifugation, and the remaining tissue was added to a solution of 1.5% sodium dodecyl sulfate and an equal volume of water-saturated phenol with 0.02 M phosphate buffer, pH 7. Again the Deener method of extraction was employed to isolate the total ribonucleic acid populations of the brain tissue. Yields of 0.7 to 1.1 mg. RNA per gram of brain tissue were found. This corresponds fully with other reported yields.[9]

The ribonucleic acid extracted from each rat brain, containing both rat and hopefully viral RNA, was then inoculated with a nonabsorbent swab onto Kentucky Wonder Wax bean leaves. The plants were grown six to a pot in four-inch pots in composted soil in a greenhouse and thinned out to three plants per pot before being used. At three-quarters maturity the leaves were inoculated after first being sprayed with carborundum to injure the cell walls and facilitate the infectivity of the ribonucleic acid. Lesions were read within five to seven days.

Discussion

Most significant about the results was the fact that they were positive, specifically during the 60 minute duration period. The average number of lesions after 60 minutes per gram of brain tissue was 156.7, with a range of 34 to 231, the median being 170. Six control rats, processed simultaneously with the first six experimental rats, demonstrated no lesions on the Kentucky Wonder Wax beans although they were handled in exactly the same manner with the exclusion of the viral ribonucleic acid suspension from the injection.

Results demonstrated that viral ribonucleic acid, remarkably similar to messenger-RNA, despite all the handicaps and obstructions such as endothelial cell layers, mesodermal cell layers, the plasma levels of ribonuclease (approximately 3 to 4 mg.%) and the loss of a protective protein coat, can still be isolated in rat brain by the prescribed technique.

The perfusion segment of the experiment eliminates viral ribonucleic acid within the cerebral vascular system as a significant proportion of the final lesion count. Controls adequately showed that no ribonucleic acid native to the rat brain is capable of infecting the assay plants.

Table 1.—Ribonucleic Acid Recovery

Rat	Duration[a]	Mg. RNA[b]	Lesions/perfusate[c]	Lesions/rat[d]
E_1	60 min.	.80	15	148
E_2	"	.77	0	182
E_3	"	.90	9	156
E_4	"	1.04	14	161
E_5	"	.81	11	217
E_6	"	.86	0	170
E_7	"	.72	12	65
E_8	"	.97	12	34
E_9	"	.85	0	231
E_{10}	"	1.08	3	209
E_{11}	"	.95	0	143
E_{12}	died[e]			
C_1	60 min.	.90	0	0
C_2	"	1.01	0	0
C_3	"	.89	0	0
C_4	"	.77	0	0
C_5	"	.95	0	0
C_6	"	.95	0	0
E_{13}	6 hrs.	1.04	4	88
E_{14}	"	.87	9	102
E_{15}	"	.90	7	79
C_7	"	.97	0	0
C_8	died			
C_9	6 hrs.	.84	0	0
E_{16}	12 hrs.	.96	0	11
E_{17}	"	.79	0	0
C_{10}	"	.70	0	0
C_{11}	"	.82	0	0
E_{18}	24 hrs.	1.10	0	0
E_{19}	"	.88	0	0
C_{12}	"	.94	0	0
C_{13}	"	.90	0	0

a=time between injection and recovery
b=mg. RNA/Gm. brain
c=2 ml. at end of 6 min. period
d=one Gm. brain
e=from injection
E=experimental
C=control

Interestingly enough, the peak lesion count is within the first one to two hours, with the numbers of lesions falling rapidly within 12 hours. After 24 hours no lesions were found, indicating that the ribonucleic acid had either been destroyed by ribonuclease, or as Jacobson would have us believe, had been incorporated into a new system and therefore lost its ability to infect the Kentucky Wonder Wax bean.

This experiment, combining rats, virus and beans, attempts to confirm the rationale behind the Jacobson experiment and, coupled with the recent work of Niu and his coworkers[6] who have indirectly measured the uptake of ribonucleic acid into cells by noting changes in specific enzyme systems, completes the experimental model for a transfer of response by way of ribonucleic acid injection.

Much of this work is speculative, and much higher yields of biologically active ribonucleic acid must be recovered to give real credence to the theory and to answer skeptical questions. A study of the ribonuclease factor must be effected before one can continue the thread of evidence. The author is presently concerned with the relative uptake of other organ systems in comparison to the neural tissue.

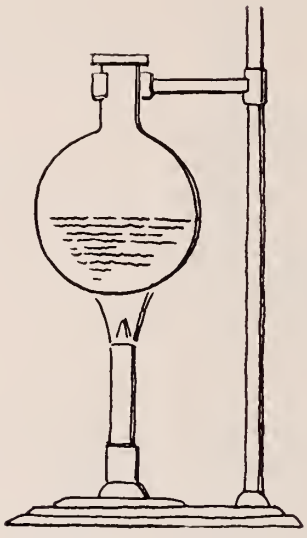
The chance for progress exists, and science can give itself the privilege of hopeful thought. One can imagine the fantastic progress possible

if Einstein's ribonucleic acid could be transferred to our generation. The only disadvantage may be that while we would gain from his wisdom, we might learn what, from his great wisdom, he chose not to tell us.

References

1. Babich, F. R.; Jacobson, A. L., and Bubash, Suzanne: Transfer of a Response to Naive Rats by Injection of Ribonucleic Acid Extracted From Trained Rats, Science 149:656-657 (Aug.) 1965.
2. Bald, J. G.: Use of Numbers of Infections for Comparing the Concentration of Plant Virus Suspensions, Annals of Applied Biology 24:33-35, 1937.
3. Hyden, H. and Egyhazi, E.: Reversal of Handedness in Rats, Proc. Nat. Acad. Sci. 49: 618, 1963.
4. Lauffer, M. A., and Price, W. C.: Infection by Viruses, Arch. Biochem. 8:449-468 (Dec.) 1945.
5. Niu, M. C.; Cordova C. C., and Niu, L. C.: Ribonucleic Acid-Induced Changes in Mammalian Cells, Proc. Nat. Acad. Sci. 47: 1689-1700 (Oct. 15) 1961.
6. Niu, M. C.; Cordova, C. C.; Niu, L. C.; Radbill, C. L.: RNA-induced Biosynthesis of Specific Enzymes, Proc. Nat. Acad. Sci., 48: 1964-1969 (Nov.) 1962.
7. Price, W. C.: Kentucky Wonder Bean Plants as Hosts for Measuring Southern Bean Mosaic Virus Activity, Phytopathology 38: 213-217 (Mar.) 1948.
8. Spiegelman, S.; Harnua, I.; Holland, I. B.; Beaudreau, G., and Mills, D.: The Synthesis of a Self-propagating and Infectious Nucleic Acid with a Purified Enzyme, Proc. Nat. Acad. Sci. 54: 919-927 (Apr.) 1965.
9. Deener, Isolation of Infectious Ribonucleic Acid from Southern Bean Mosaic Virus, Virology 27:425-428, 1965.

▶ Mr. Dennis, University of Florida College of Medicine, Gainesville 32601.



Problems In Initiating Office Bacteriology

J. W. BARTLETT

Medical practice benefits greatly from laboratory functions. The urinalysis, hemoglobin and white blood cell count have become standards in office practice, while the more sophisticated tests are left for hospital and clinical laboratories. If a simple, rapid technique of identifying common bacterial pathogens was available, it would be of great value in allowing the physician to make a more accurate diagnosis and to treat more specifically, thereby increasing the physician's ability to provide better medical care.

A simple, rapid office technique is now available, as set forth in the monograph "Office Bacteriology" by Walter Lane, M.D. and Jack C. Evans, M.D., Director of the University of Florida Teaching Hospital's Children's Clinic. The question is then raised "Can Office Bacteriology be incorporated into modern medical practice with practical results?" This study is an attempt to answer this question, using equipment and techniques described in "Office Bacteriology."

Physicians

Four Gainesville general practitioners and six pediatricians were contacted and presented with a plan to initiate office bacteriology into their private practice. The project provided the physicians with complete instruction on the initiation and use of the laboratory equipment they were to purchase. Many questions were raised as to the practicality of the procedure. Questions dealing with the importance of cultures and the reliability of the techniques could be answered by previous studies. Scepticism and questions regarding expense, time involved and need of a trained technician to plate and read the cultures could only be answered in theory. As this study would give the answers to these and other questions of practicality, 10 physicians were contacted, nine of whom agreed to the study, with the general belief that even if results were not as fruitful as desired, the planned two month period of operation would allow for full financial reimbursement and in addition provide valuable experience in the bacteriological aspects of medicine.

The practices of the nine physicians were split accordingly; three of the pediatricians and one general practitioner were in practice by themselves; the other three pediatricians were in a joint practice as were the remaining two general practitioners. All of the physicians in single private practice decided to do the bacteriological procedures themselves, whereas those in joint practice designated a nurse as acting technician.

Equipment

Materials used in this study are listed in table I. The company catalogue numbers are given for each item. The individual items were selected taking into consideration quality, economy and reliability of immediate delivery. The latter is particularly important with reference to perishable items such as culture plates and sensitivity discs. Materials used proved to be entirely satisfactory. Quality should not be sacrificed for economy, especially with the perishable items.

All items except incubators were ordered through a local medical supply company, for in all cases except the incubators, major distributor house prices and delivery dates could be met or

Sponsor: J. C. Evans, M.D., Department of Pediatrics, Experimental Medicine Project, January-April, 1966, College of Medicine, University of Florida, Gainesville.

TABLE 1.—THE ECONOMICS OF OFFICE BACTERIOLOGY

Permanent Equipment

ITEM	NUMBER	AMOUNT	PRICE
Incubators[1]	11-695 V2 Model 100A		$139.00
Alcohol lamp[1]	4-245	125 cc.	1.25
Thumb forceps[1]	8-887	1	.80
Gram stain bottles[1]	3-000	30 ml. 4 @ $.90	3.60
Gram stain rack[1]	2-993	1	1.80
Wash bottle[1]	3-409-10	125 cc.	.50
Sensi-Disc dispenser[1]	05-617	3 @ $1.00	3.00
Inoculating loop[2]	7433-A	0.01 cc.	14.15
Platinum wire[2]	7434	1 ft.	3.60
Needle holder[2]	7420	2	2.86
Candle jar[5]		1 gallon	
Total			$170.56

Expendables

ITEM	NUMBER	AMOUNT	PRICE
6" Applicator sticks	Sterile	2/package	$10.64/1000
Colab Sterile Calgi-swabs[3]	11-58 B	1000/carton	40.00/carton
Glass slides[1]	12-553	1 gross	3.85
Crystal violet[1]	S0-G-20	1 pint	4.80
Gram iodine[1]	S0-I-96	1 pint	2.90
Acetone-alcohol[1]	S0-A-38	1 quart	3.30
Safranin[1]	S0-S-2	1 pint	2.75
Rimseal BBL culture media[1]			
Blood agar	03-168 PB	2 pk. 20	20.00
Chocolate agar	03-265 PC	1 pk. 20	10.00
Levine E.M.B. agar	03-180 P	1 pk. 20	10.00
Sensitivity discs[1]			
BBL Taxo A	08-466 C	Cartridge of 50	1.65
BBL Taxo D	08-467 C	Cartridge of 50	1.65
Penicillin (10)	08-024 C	Cartridge of 50	1.65
Additional discs			1.65
Candle[4]	Utility candles	5	1.00
Methyl alcohol[4]		1 pint	.50
Total			$116.44
INITIAL EXPENSE			$287.00
After 80 cultures @ $5 each minus $50 for new supplies (plates, discs, etc.)			350.00
After 80 cultures the project is out of the red.			

1. Fisher Scientific Company, 690 Miami Circle, Atlanta, Ga. 30319.
2. Arthur H. Thomas Company, P. O. Box 779, Philadelphia, Pa. 19105
3. Colab Laboratories, P. O. Box 234, Chicago Heights, Ill.
4. May be obtained at any local drug store.
5. A large mouth gallon jar suffices well.

bettered. Using a local retailer also proved advantageous in a few instances where articles were found damaged upon delivery or articles were substituted for those ordered. For these reasons, and the time involved in ordering directly from the manufacturer, it is thought that in a project of this kind, dealing through a reputable local supply house is advantageous.

The prices listed are catalogue prices, subject to change, and are fairly representative from one brand to another of equal quality. The only article which presented difficulty in acquisition was the incubator. Of all the incubators which were investigated, the Blue M, gravity convection, Model 100-A (Fisher #11-695V2 Model 100-A) is the most ideal. The exterior size is relatively compact (17" x 18" x 23") and yet provides the room necessary for the carbon dioxide jar required to grow Hemophilus influenzae. The price of $139.00 is reasonable for the

quality of equipment involved, and the purchase of an inferior piece of machinery for less money is not advisable.

Other than the incubator, the only article which demands careful scrutiny where quality is concerned is the culture media. A number of brands were tried and the best results were obtained from Rimseal BBL culture media. These plates may be ordered locally for immediate delivery. Kept refrigerated, they remain in excellent condition for a month to six weeks. The quality of these plates is a necessity in a situation such as this where the rate of turnover of plates is neither large nor constant.

Methods

At the beginning of this project, two months were set aside for the actual application of the techniques involved. Early in the project, however, it became apparent that two months of actual application would be impossible because of a delay in shipment of the incubators. The end result showed the months of January and February spent contacting the physicians, selling them on the project, ordering materials, learning to read the bacteriological plates and devising a recording system to tabulate the results. The following facts were recorded concerning each culture: culture sites; diagnosis; treatment before results of culture; treatment after results of culture and reading of the culture plates by the office, student and hospital laboratory.

Upon arrival of all materials, a presentation of when and how different cultures should be done was given to each physician and his staff (see monograph "Office Bacteriology"). Only one half of the physicians and almost none of the nurses were familiar with methods used in obtaining bacteriological cultures. After these basic procedures were covered a daily routine was set up.

Each office day, at a specified time, the student would visit the physician's office and review the plates cultured the previous day. Those plates which presented organisms difficult to determine were taken to the Health Center laboratory and read by a technician in bacteriology; thus, difficult plates received three readings. Because of limited time it became necessary to supplement the physician's cultures with plates from other offices. Even more helpful was the assistance received from the Health Center laboratory, which provided hospital cultures to be shown to the clinicians. With the two to five cultures done each day in the office, plus those from other physicians and those from the Health Center, most of the common organisms were covered at least three times per week. This daily routine of reviewing the streaking and reading of culture plates lasted approximately six weeks.

Results

This study was done to investigate problems involved in initiating office bacteriology into clinical practice. In a study of this type it is obvious that a large number of the results are highly subjective in nature.

The two major objections to the project initially concerned finances and time. As revealed in table 1, the total initial expense amounted to $287. This figure included everything except salaried time spent by those operating laboratory equipment. As is shown, the original cost was more than amortized after one reorder, or a total of 80 bacteriological cultures. With the average physician doing approximately 10 cultures per week, within eight weeks the original investment would be paid in full. In our experience, one pediatrician and both general practitioners in joint practice did a sufficient number of cultures to pay for the equipment by the end of the project. The three pediatricians in joint practice did not get their equipment in time to participate actively in the program, and the other three physicians did not do a sufficient number of cultures during the program to receive full reimbursement. Two of the three latter mentioned offices were newly opened and did not have the patient load to warrant doing 10 cultures per week. The other practice was able to function only four weeks because of equipment lost in transport, and the results are not as yet representative. These practices which have not as yet done a sufficient number of cultures are being followed and assisted with hopes that the initiated procedures will be continued. All of the findings point to the economic feasibility of office bacteriology.

Space appeared to be a potential problem. In reality this never occurred. The incubator requires a 1½ sq. ft. area on a table or counter, with a nearby electric outlet. Another 4 sq. ft. area of counter space is required for the actual streaking of the plates and equipment storage. This, plus the room in a refrigerator required to store the plates, is the only space required for all laboratory procedures.

Table 2.—Culture Results

Physician	Second Week Agree	Second Week Disagree	Last Week Agree	Last Week Disagree
A	4	6	8	1
B and C	5	4	10	1
D	2	3	4	1
E	1	3	3	1

The time required before agreement between the person in the office reading the plates and the student was variable for many reasons, one of which was the degree of interest the technician or physician had in the project. Those interested in learning to use the material found it both fascinating and easy to learn. The factor bearing the most weight in the length of time before accurate readings could be made was the free office time the physician or nurse had to spend with the student in looking over the plates cultured the previous day. As the student must visit every physician's office at least once every day, it was impossible to wait each time the person operating the office bacteriology equipment became involved elsewhere. Those who had the extra time received much more instruction than those who did not, especially on plates brought in from other offices or the Health Center.

By the end of six weeks the dual general practice with the nurse as laboratory technician and the pediatrician in single practice, which paid for themselves in the two months, were reading plates with excellent accuracy (table 2). Only those plates which would have presented problems to the hospital laboratory were presenting difficulty in the differentiation of organisms. The physician was advised to have the difficult cultures streaked and read by a professional laboratory, since the sophistication of office bacteriology equipment is not sufficient to differentiate organisms other than common pathogens. The other practices, while not attaining the excellence of the two mentioned, were reading better than 75% accuracy by the end of the project and with another two to three weeks assistance should have been proficient at differentiating the common pathogens such as Proteus, Coliforms, Staphylococcus, Pneumococcus, Neisseria, Pseudomonas, Group A Streptococcus and Hemophilus.

Records were kept of all patients who had cultures taken, their diagnosis and treatment. Unfortunately, there was no noted change toward a delay in treatment until after the culture was read. In those cases where the patient had a culture taken, was treated and did not improve, however, the culture was used as the determining factor in the choice of new treatment. A subjective change was noted in some instances as to etiological diagnosis, viral versus bacterial. This is to be expected, for if the "bug going around" is shown to be nonbacterial in origin, the incidence of viral diagnosis will rise correspondingly until the peak of the epidemic curve is reached after which the incidence of diagnosed AVD falls again to normal, following the drop in incidence of normal flora found on culture. The laboratory priming of clinical diagnosis may well be the reason for high clinical diagnostic accuracy in differentiating between acute viral respiratory illness and beta hemolytic streptococcal infection in the studies of Breese[1] and Rantz.[2] Our results in clinical differentiation of AVD from beta strep compared more closely with those of Teberg[3] and Stillerman.[4] In one office, of 30 patients thought to possibly have a B-strep pharyngitis or tonsillitis, 13 (43.3%) were found to have a culturable B-strep. Another office in our study showed 17 out of 31 possible strep throats having been on culture, or 55% accuracy (table 3). We believe that a 50% accuracy in a double blind study is about the best to be found over an extended period of time without some means of laboratory investigation to aid the diagnosis.

Discussion

The only private clinical laboratory in Alachua County was visited before beginning this project, and the student was informed they ran an average of only 10 bacteriological cultures per week. This compares favorably with the approximate five to ten cultures per week per doctor processed in the physician's office. This could mean that our project ran too many cultures, or that far too few cultures had been done previously because of inconvenience or because it was considered eco-

Table 3.—Pharyngitis and Tonsillitis

Physician	+ Culture Treated	+ Culture Not Treated	— Culture Treated	— Culture Not Treated
A	17	0	14	0
B and C	13	0	17	0
Total	30	0	31	0

nomically unfeasible. It is more than just a possibility that initially we tended to do more cultures than were necessary. As the project progressed, however, a leveling off was seen at approximately five to 10 per week, indicating that before our project was instituted, too few cultures were being done.

Previous experience in bacteriology was of some value, but certainly not a necessity. The greatest assets were intelligence, interest and a minimum of 15 minutes per day in which to review the cultures plated the day before. As previously stated, the practices worked with included four physicians in single practice, two in joint practice and three in a joint practice. The four in private practice did their own plating and reading due to a lack of help. The joint practices used one of their nurses as a technician. This latter method seemed preferable, for the nurse had more free time and enjoyed her new responsibility while profiting from the learning experience.

Many different ideas were originally expressed as to the possible role office bacteriology might have in individual practices. One physician was interested solely in identification of streptococci in the throat; another was far more concerned with the application in urinary tract infections. One physician was concerned not with the identification of organisms, but only with antibiotic sensitivities. Fortunately, as the project proceeded, the majority began to view the procedures as a simple means of furthering their medical proficiency in many areas. Most of the physicians who participated eventually took full advantage of the many opportunities which the project presented.

Many areas are open to the use of office bacteriology, ranging from difficult otitis problems due to organism resistance to colony count bacteriuria diagnostic problems. None, however, have received as much attention as the difficulties arising in the differentiation of acute viral respiratory infection from that of a beta streptococcal pharyngitis. According to Smith,[5] most respiratory diseases have similar clinical manifestations regardless of etiology, bacterial or viral. Even Group A streptococcal pharyngitis is in most children impossible to distinguish from exudative pharyngitis due to certain viruses unless an adequate throat culture is taken. This belief is shared by Mortimer and Boxerbaum[6] who stated, "For accurate diagnosis and control of Streptococcal disease, inexpensive bacteriologic culture facilities are required. . . ."

Because of difficulty in diagnosis and the dangers involved in the sequelae of strep infection, many physicians think it best to treat with antibiotics all pharyngitis and tonsillitis problems which indicate a possible strep infection. Although appearing to be the answer to the problem, other factors must be considered. Strep infection should be treated for a full 10 days, proving a costly remedy for an undifferentiated URI which 95% of the time is due to a virus[5] and not helped in the least by the antibiotic.[7] Other dangers of unnecessary antibiotic administration include hypersensitivity, drug toxicity, bacterial acquisition of resistance and pathogenic flora overgrowth.

In the past it has been professed that viral infections lower the body resistance, thus making it easier for a secondary bacterial infection due to overgrowth of potential pathogens found in the body's normal flora to exist. The reasoning given, therefore, in antibiotic prophylaxis in viral infection is that the drugs will suppress the common pathogens which might be found in the body. A study by Davis and Wedgewood,[7] however, has failed to show that antibiotics regularly suppress the normal flora, and when suppressed, a superinfection often occurred, thus indicating that prophylaxis antibiotics do not prevent bacterial complication of ARD. They may, in fact, enhance the infection.

The material described is a prime example of an area in which office bacteriology may display its worth. By utilizing the simple, inexpensive method of office culture of streptococci, the presence or absence of beta streptococci in the throat can be ascertained with a high degree of reliability within 24 hours. In this fashion the use of antibiotics in acute pharyngitis or tonsillitis can be more frequently restricted to true streptococcal infection requiring specific therapy, thereby decreasing opportunities for iatrogenic disease.

Areas other than the respiratory tract present problems which may be solved both economically and simply; these include wound infections and urinary tract infections. It is generally accepted that a clean catch sample of urine containing greater than 100,000 bacteria per milliliter is almost a certain indicator of urinary tract infection. Quantitative culture of urine is most accurately done by the classic dilution pour plate methods. Unfortunately, this technique is too

expensive in personnel, time and materials for use in clinical practice. A simple and inexpensive rapid technique for quantitative culture of urine, however, has been developed and is based on the use of a volume calibrated (.01 cc.) bacteriologic loop. The validity of such calibrated loop quantitative cultures of the urine has been established by simultaneous culture of urine specimens by dilution pour plate method.[8] The number of urine cultures done in this experiment was minimal, but the simplicity of the routine and its proven reliability indicate that a feasible office test is now at hand.

Summary

Although problems arose in obtaining equipment and initiating the project in the limited time allotted, a productive, practical Office Bacteriology was established. The quality of the results depended to a large extent on the individual office situation. Physicians with a nurse or technician who could spend approximately 15 minutes per day for eight weeks with the student instructor have added to their practice a valuable diagnostic tool (table 4). Those not able to spend even this limited amount of time did not fare as well, yet they too gained valuable knowledge concerning the organisms they were or were not treating, while not absorbing a financial loss.

To those physicians interested in initiating office bacteriology into their practice yet sceptical as to its practicality, we have tried to show in this report that our experience indicates this project is economically feasible, not greatly hampered by a small operating area, not overly time-consuming after time is initially spent learning the procedures, and is a necessity in modern clinical medicine where other inexpensive laboratory facilities are not close at hand.

Table 4.—Type Cultures

Physician	NP	TH	Urine	Pus	Ear
A	1	50	5	2	0
B and C	0	48	13	6	3
Total	1	98	18	8	3

References

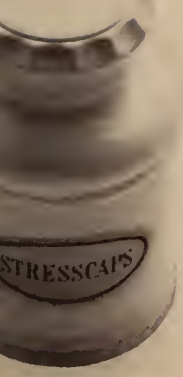
1. Breese, B.B., and Disney, F. A.: Accuracy of Diagnosis of Beta Streptococcal Infections on Clinical Grounds, J. Pediat. 44: 670-673 (June) 1954.
2. Rantz, L. A.; Boisvert, P. J., and Spink, W. W.: Hemolytic Streptococcic and Non-Streptococcic Disease of the Respiratory Tract: A Comparative Clinical Study, Arch. Int. Med. 78:369 (Oct.) 1946.
3. Teberg, A., and Adams, F. H.: Streptococcal Disease in Southern California, J. Pediat. 48:451, 1956.
4. Stillerman, M., and Bernstein, S. H.: Streptococcal Pharyngitis, Am. J. Dis. Child. 101:476-489 (Apr.) 1961.
5. Smith, R. T.: Concepts of Respiratory Disease in Children, J. Florida M. A. 47:1005-1010 (Mar.) 1961.
6. Mortimer, E. A., and Boxerbaum, B.: Diagnosis and Treatment: Group A Streptococcal Infections, Pediatrics 36:930, 1965.
7. Davis, S. D., and Wedgewood. Antibiotic Prophylaxis in Acute Viral Respiratory Diseases, Am. J. Dis. Child. 109:544, 1965.
8. Hoeprich, P. D.: Culture of the Urine, J. Lab. Clin. Med. 56:899-907 (Dec.) 1960.

▶ Mr. Bartlett, University of Florida College of Medicine, Gainesville 32601.



in chronic illness

B and C vitamins are part of therapy: An imbalance of water-soluble vitamins and chronic illness often go hand in hand. STRESSCAPS capsules, containing therapeutic quantities of vitamins B and C, are formulated to meet the increased metabolic demands of patients with physiologic stress. In chronic illness, as with many stress conditions, STRESSCAPS vitamins are therapy.



Stresscaps®

Stress Formula Vitamins Lederle

FOR PROFESSIONAL RECOMMENDATION ONLY

Each capsule contains:	
Vitamin B_1 (as Thiamine Mononitrate)	10 mg
Vitamin B_2 (Riboflavin)	10 mg
Vitamin B_6 (Pyridoxine HCl)	2 mg
Vitamin B_{12} Crystalline	4 mcgm
Vitamin C (Ascorbic Acid)	300 mg
Niacinamide	100 mg
Calcium Pantothenate	20 mg

Recommended intake: Adults, 1 capsule daily, for the treatment of vitamin deficiencies. Supplied in decorative "reminder" jars of 30 and 100; bottles of 500.

LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York

Lederle

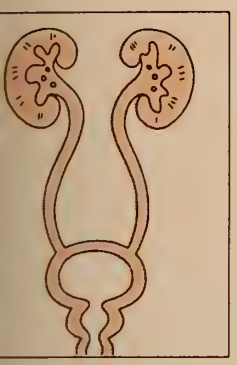
628-6—3614

When the battle with bacteria is in the G. U. trac

Artist's conception of acute infection
showing G.U. pathogens with predominance of *E. coli*.



onsider Gantanol (sulfamethoxazole)



For vigorous treatment of G.U. infections before the invaders become entrenched... Gantanol (sulfamethoxazole) offers a comprehensive spectrum of antibacterial effectiveness against most common gram-negative as well as gram-positive invaders. In addition, it provides satisfactory concentrations in the blood and urine with ready diffusion o interstitial fluids for antibacterial activity at foci bacterial invasion.

gh antibacterial activity against *E. coli* and other mmon urinary pathogens... A review of 153 cases of ute G.U. infections reported in the literature shows that 90% responded to Gantanol (sulfamethoxazole), with over one-half of these patients showing excellent relief of symptoms.[1,2] Even in stubborn chronic G.U. infections, almost 60% of 450 patients improved on Gantanol (sulfamethoxazole), including many who had not responded to other antibacterials.[1-6]

Generally uncomplicated therapy enhances the favorable clinical results... Of the total 686 patients from the studies cited,[1-6] only three discontinued therapy because of side effects. Most of the side effects reported (approximately 3%) were mild and included nausea and/or vomiting, skin rash, dizziness, headache, gastritis, generalized uneasiness and itching.[1-6]

1. Peters, J. H.: *J. Urol., 87*:747, 1962. 2. Draper, J. W., *et al.: South. M. J., 57*:920, 1964. 3. Stewart, B. L.: *J. Urol., 87*:491, 1962. 4. Hagstrom, R. S.: *Rocky Mountain M. J., 59*:(2), 37, 1962. 5. Arnold, J. H.: *Clin. Med., 71*:552, 1964. 6. Nelson, C. G.: *Colorado GP, 3*:(3), 2, 1961.

---

fore prescribing, please consult complete product ormation, a summary of which follows:

ntraindicated in sulfonamide-sensitive patients, gnant females at term, premature infants, or newrn infants during first three months of life.

rnings: Use only after critical appraisal in patients h liver damage, renal damage, urinary obstruction blood dyscrasias. If toxic or hypersensitivity reacns or blood dyscrasias occur, discontinue therapy. In ermittent or prolonged therapy, blood counts and er and kidney function tests should be performed.

ecautions: Observe usual sulfonamide therapy preutions, including maintenance of an adequate fluid ake. Use with caution in patients with histories of ergies and/or asthma. Patients with impaired renal nction should be followed closely since renal impairent may cause excessive drug accumulation. Occanal failures may occur due to resistant microorganns. Not effective in virus or rickettsial infections.

verse Reactions: Headache, nausea, vomiting, urtiria, diarrhea, hepatitis, pancreatitis, blood dyscras, neuropathy, drug fever, skin rash, Stevens-Johnson syndrome, injection of the conjunctiva and sclera, petechiae, purpura, hematuria or crystalluria may occur, in which case the dosage should be decreased or the drug withdrawn.

Dosage: Adults—4 tablets initially, then 2 tablets b.i.d. or t.i.d. depending upon severity of infection. Children —1 tablet/20 lbs initially, followed by ½ tablet/20 lbs b.i.d.

How Supplied: Tablets, 0.5 Gm, bottles of 50.

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

ROCHE

when there are bacterial invaders in the bladder, prostate or kidneys

Gantanol®
(sulfamethoxazole)


Bartholin's gland
Periurethral glands
Cervical glands
Flagyl®
brand of
metronidazole
Seminal vesicles
Bladder
Prostate gland

Destroys Trichomonads Wherever They Are

Flagyl seeks out the sites where trichomonads hide. Only a systemic agent can. Flagyl does, selectively and effectively.

Flagyl destroys trichomonads in the inner crypts, glands and cavities of the genitourinary tract in both women and men. Consequently, Flagyl is capable not only of curing trichomoniasis in women but also of preventing reinfection.

Correctly used, with due attention to repeat courses of treatment for resistant, deep-seated invasion and to the presumption of reinfection from male consorts, Flagyl has repeatedly produced up to 100 per cent cure in large series of patients.

When the diagnosis of trichomoniasis is positive, Flagyl is positive.

Dosage and Administration — In *women:* one 250-mg. oral tablet three times daily for ten days. A vaginal insert of 500 mg. is available for local therapy when desired. When used, one vaginal insert should be placed high in the vaginal vault each day for ten days; concurrently two oral tablets should be taken daily.
In *men* in whom trichomonads have been demonstrated: one 250-mg. oral tablet twice daily for ten days.

Contraindications — Pregnancy; disease of the central nervous system; evidence or history of blood dyscrasia.

Precaution—Complete blood cell counts should be made before, during and after therapy, especially if a second course is necessary.

Side Effects—Infrequent and minor side effects include nausea, metallic taste, furry tongue and headache. Other effects, all reported in an incidence of less than 1 per cent, are diarrhea, dizziness, vaginal dryness and burning, dry mouth, rash, urticaria, gastritis, drowsiness, insomnia, pruritus, sore tongue, darkened urine, anorexia, vomiting, epigastric distress, dysuria, depression, vertigo, incoordination, ataxia, abdominal cramping, constipation, stomatitis, numbness of an extremity, joint pains, confusion, irritability, weakness, flushing, cystitis, pelvic pressure, dyspareunia, fever, polyuria, incontinence, decreased libido, nasal congestion, proctitis and pyuria. Elimination of trichomonads may aggravate candidiasis.

SEARLE *Research in the Service of Medicine*

Did Dorothy Larson show you her ankles in private? Now she shows them in public.



Your office examination would have confirmed that Mrs. Larson was up to her knees in edema. Her heart was beginning to fail. And her ankles had disappeared under an inch of salty water.

Along with digitalis, you might have prescribed Hygroton. To get rid of the edema. And to keep it from coming back. And you prescribe Hygroton the same way you usually prescribe digitalis: just once a day.

Tablet for tablet, Hygroton is just about the most effective diuretic going. And it costs a fraction of what Mrs. Larson would have to spend for equivalent therapy with short-acting diuretics.

In fact, Hygroton is an awfully nice way to treat the Mrs. Larsons in your practice. Just tell them you can get their ankles back at half price.

Indications: Hypertension and many types of edema involving retention of salt and water.
Contraindications: Hypersensitivity and most cases of severe renal or hepatic disease.

Warning: With administration of enteric-coated potassium supplements, the possibility of small bowel lesions should be kept in mind.
Precautions: Reduce dosage of concomitant antihypertensive agents by at least one-half. Discontinue if the BUN rises or liver dysfunction is aggravated. Electrolyte imbalance and potassium depletion may occur; take special care in cirrhosis or severe ischemic heart disea



Hygroton®
chlorthalidone

in patients receiving corticosteroids, ACTH, or digi-
Salt restriction is not recommended.
Effects. Dizziness, weakness, nausea, vomiting,
erglycemia, hyperuricemia, headache, muscle cramps,
postural hypotension, constipation, leukopenia, thrombocytopenia, agranulocytosis, impotence, dysuria, transient myopia, skin reactions, including urticaria and purpura, epigastric pain, or G.I. symptoms after prolonged administration.

Average Dosage: One tablet (100 mg.) with breakfast daily or every other day.

Availability: Tablets of 100 mg. 6524-V(B)

For full details, see prescribing information.

...so you might say Hygroton is good public relations for Mrs. Larson

Because it gets her *out* in public in the first place. At 43, Mrs. Larson worries about appearances and swollen ankles don't help.

But Hygroton's cosmetic effect is only half the story. Hygroton and digitalis therapy helps her get back in the swing of things. Gives her a second wind. Gets rid of the extra pillow she needed for a good night's sleep. Now she even likes to take walks. Just for the fun of it!

When her troubles began, Mrs. Larson thought they were the signs of the change of life. It's a change all right, but one you can treat. And you can count on Hygroton to help keep her in public instead of in the hospital.

See preceding pages for brief summary of prescribing information.



Geigy

Geigy Pharmaceuticals
Division of Geigy Chemical Corporation
Ardsley, New York

Association News

'Doctor's Dilemma' to Be Examined During AMA Annual Convention

The moral certitudes of yesterday have a habit of becoming moral issues in today's world of kaleidoscopic change.

Examples abound in medicine. Society no longer knows what it wants done about the unwed mother, for instance, even though a physician is expected to have ready answers which will not only help the woman but concomitantly please society.

When is abortion justified? Heat is generated on both sides of the argument, and may at any time be reflected upon a physician who becomes involved; yet physician involvement in these and other questions is demanded by the public. As an important segment of the community the individual physician as well as the medical profession is expected to contribute to the fixing of moral boundaries.

This is "The Doctor's Dilemma in the World of Changing Morals," the subject of a panel discussion to be held Sunday, June 18, at the American Medical Association's 116th Annual Convention in Atlantic City, N. J. The program begins at 8:15 p.m. in Convention Hall.

Sponsored by the AMA Committee on Medicine and Religion, it is the fifth such program centering on moral-ethical issues, according to the Rev. Dr. Paul B. McCleave, LLD, director of the Department of Medicine and Religion. The first, on "The Terminal Patient," was presented at the 112th Annual Convention in 1963. Topics scheduled for discussion are: Unwed Mother, Contraceptives and the Coed, Abortion, and Alcoholism.

"We will not be arguing the rightness or wrongness of the problems," said Dr. McCleave, who will serve as moderator. "Our purpose will be to examine the dilemma of the physician who must not only work with the problems but become involved in them."

Nursing Home Care Clarified

Elderly Floridians should be warned that not everyone will qualify for free nursing home care under a medicare program which went into effect Jan. 1, the Florida Joint Council on Health of the Aging said recently.

The council, of which the FMA is one of the member organizations, said many citizens think they will automatically qualify and are in danger of a rude shock when they find they do not.

The Social Security Administration and Florida Commission on the Aging should begin an immediate program to get the facts to the people, the council said.

The group said the belief that everyone will get free care is so widespread that some elderly citizens had planned to cancel apartment leases at the end of the year, thinking they would be completely cared for.

Actually, there are several restrictions regarding who will qualify for the aid. The recipients must be hospitalized for at least three days and then be recommended for admittance to a nursing home by their physician. The program will then pay for up to 100 days of nursing home care during one illness.

Ethical Responsibilities Regarding Prescriptions

It is unethical for a physician to be influenced in the prescribing of drugs or devices by his direct or indirect financial interest in a pharmaceutical firm or other supplier. It is immaterial whether the firm manufactures or repackages the products involved.

It is unethical for a physician to own stock or have a direct or indirect financial interest in a firm that uses its relationship with physician-stockholders as a means of inducing or influencing them to prescribe the firm's products. Practicing physicians should divest themselves of any financial interest in firms that use this form of sales promotion. Reputable firms rely upon quality and efficacy to sell their products under competitive circumstances, and not upon appeal to physicians with financial involvements which might influence them in their prescribing.

Prescribing for patients involves more than the designation of drugs or devices which are most likely to prove efficacious in the treatment of a patient. The physician has an ethical responsibility to assure that high quality products will be dispensed to his patient. Obviously, the benefits of the physician's skill are diminished if the patient receives drugs or devices of inferior quality.

Inasmuch as the physician should also be mindful of the cost to his patients of drugs or devices he prescribes, he may properly discuss with patients both quality and cost.

Adopted by the Judicial Council, American Medical Association, March 12, 1967.

VALIUM® (diazepam)Roche®

Before prescribing, please consult complete product information, a summary of which follows:

Contraindications: Infants, patients with history of convulsive disorders, glaucoma or known hypersensitivity to drug.

Warning: Not of value in the treatment of psychotic patients, and should not be employed in lieu of appropriate treatment.

Precautions: Limit dosage to smallest effective amount in elderly or debilitated patients (not more than 1 mg, one or two times daily initially) to preclude ataxia or oversedation, increasing gradually as needed or tolerated. As is true of all CNS-acting drugs, until correct maintenance dosage is established, advise patients against possibly hazardous procedures requiring complete mental alertness or physical coordination. Driving during therapy not recommended. In general, concurrent use with other psychotropic agents is not recommended. If such combination therapy is used, carefully consider individual pharmacologic effects—particularly with known compounds which may potentiate action of Valium (diazepam), such as phenothiazines, barbiturates, MAO inhibitors and other antidepressants. Advise patients against simultaneous ingestion of alcohol or other CNS depressants. Safe use in pregnancy not established. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Observe usual precautions in impaired renal or hepatic function. Periodic blood counts and liver function tests advisable in long-term use. Cease therapy gradually.

Side Effects: Side effects (usually dose-related) are fatigue, drowsiness and ataxia. Also reported: mild nausea, dizziness, blurred vision, diplopia, headache, incontinence, slurred speech, tremor and skin rash; paradoxical reactions (excitement, depression, stimulation, sleep disturbances, acute hyperexcited states, hallucinations); changes in EEG patterns during and after drug treatment. Abrupt cessation after prolonged overdosage may produce withdrawal symptoms (convulsions, tremor, abdominal and muscle cramps, vomiting, sweating) similar to those seen with barbiturates, meprobamate and chlordiazepoxide HCl.

Dosage—*Adults:* Mild to moderate psychoneurotic reactions, 2 to 5 mg b.i.d. or t.i.d.; severe psychoneurotic reactions, 5 to 10 mg t.i.d. or q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; muscle spasm with cerebral palsy or athetosis, 2 to 10 mg t.i.d. or q.i.d. *Geriatric patients:* 1 or 2 mg/day initially, increase gradually as needed and tolerated. (See Precautions)

Supplied: Valium® (diazepam) Tablets, 2 mg, 5 mg and 10 mg; bottles of 50 and 500.

ROCHE

Roche Laboratories
Division of
Hoffmann-LaRoche Inc.
Nutley, N.J. 07110



MPORTANT NEW INSIGHTS INTO HUMAN
RESPONSE TO EMOTIONAL STRESS:

mpressive new confirmation of the effectiveness of
alium®(diazepam)





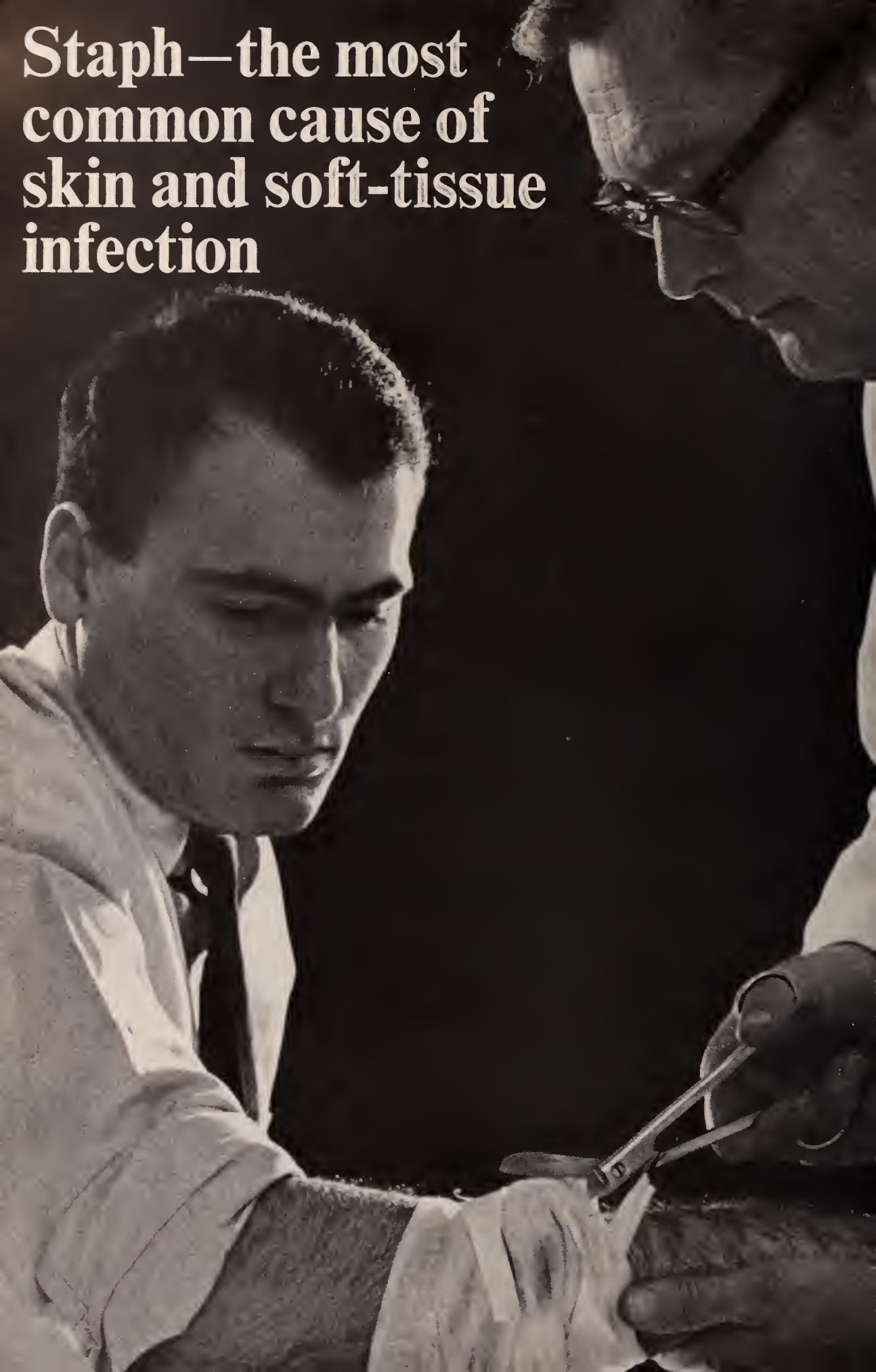
sk your Roche representative to arrange a
resentation of this important and fascinating
ew technique of research in emotional stress
a new methodology...quantitative, objective
easurement with double-blind controls.

lease see opposite page for important
escribing information.





Staph—the most common cause of skin and soft-tissue infection



.reliably controlled with specific therapy



A suitable dosage form for every staph situation

Staph—the most common cause of skin and soft-tissue infection—also is responsible for many more serious infections, such as pneumonia, osteomyelitis, and septicemia. Often, a seemingly minor skin infection is the source of metastatic spread to deeper structures. When findings on culture incriminate staph as the cause, Prostaphlin (sodium oxacillin) will provide specific effective therapy.

Bactericidal effectiveness. Hardly a staph organism can resist the bactericidal action of Prostaphlin (sodium oxacillin), as shown by a 34-month *in vitro* study. Of all staph isolates tested, 99.5% were sensitive to oxacillin.[1]

Clinically proven. There is a high correlation between these *in vitro* findings and clinical results. Of 610 patients treated with Prostaphlin (sodium oxacillin), 89.8% were reported cured or improved, including those with staph infections resistant to penicillin G.[2] And since resistance does not appear to develop *in vivo,* therapy with oxacillin can be extended when necessary.

Outstanding safety record. Besides being staph-specific and rapidly absorbed—Prostaphlin (sodium oxacillin) has established an outstanding record of safety during five years of widespread clinical use. Continuous high blood levels of oxacillin have not produced toxic effects on kidney function, assuring a significant margin of safety. However, as with all penicillins, the possibility of allergic response should be considered.

Capsules, Oral Solution and Injectable. Prostaphlin (sodium oxacillin) is available in three flexible dosage forms to suit the age of the patient and severity of infection—capsules, an oral solution for pediatric use, and multi-dose vials for injection, I.M. or I.V.

PRESCRIBING INFORMATION: For complete information, consult Official Package Circular. *Indications:* Infections caused by Staphylococci, particularly those due to penicillin G-resistant Staphylococci. *Contraindications:* A history of severe allergic reactions to penicillin. *Precautions:* Typical penicillin-allergic reactions may occur. Safety for use in pregnancy and premature infants is not established. Because of limited experience, use cautiously and evaluate organ system function frequently in neonates. Mycotic or bacterial superinfections may occur. Assess renal, hematopoietic and hepatic function intermittently during long-term therapy. *Adverse Reactions:* Skin rashes, pruritus, urticaria, eosinophilia, nausea, vomiting, diarrhea, fever and occasional anaphylaxis. Rare cases of reversible hepatocellular dysfunction have occurred. Moderate SGOT elevations have been noted. Thrombophlebitis has occurred occasionally during intravenous therapy and leukopenia was noted in two cases. *Usual Oral Dosage:* Adults: 500 mg. *q.*4 or *q.*6*h.* Children: 50 mg./Kg./day. *Usual Parenteral Dosage:* Adults: 250-500 mg. *q.*4 or *q.*6*h.* Children: 50 mg./Kg./day. Treat beta-hemolytic streptococcal infections for at least 10 days. Give oral drug 1 to 2 hours before meals. *Supplied:* Capsules—250 and 500 mg. in bottles of 48. Injectable—250 mg., 500 mg., and 1 Gm. dry filled vial for I.M./I.V. use. For Oral Solution—100 ml. bottle, 250 mg./5 ml. when reconstituted. **A.H.F.S. CATEGORY: 8:12.6**

References: 1. Abstracted from *Antibiotic Sensitivity of Staphylococci Studied from November 1962 through August 1965,* reported by Griffith, L.J., Staphylococcus Reference Laboratory, V.A. Hospital, Batavia, N.Y. 2. Data on file, Bristol Laboratories.

BRISTOL

BRISTOL LABORATORIES/Division of Bristol-Myers Co., Syracuse, N.Y.

Whenever you suspect staph PROSTAPHLIN®

SODIUM OXACILLIN

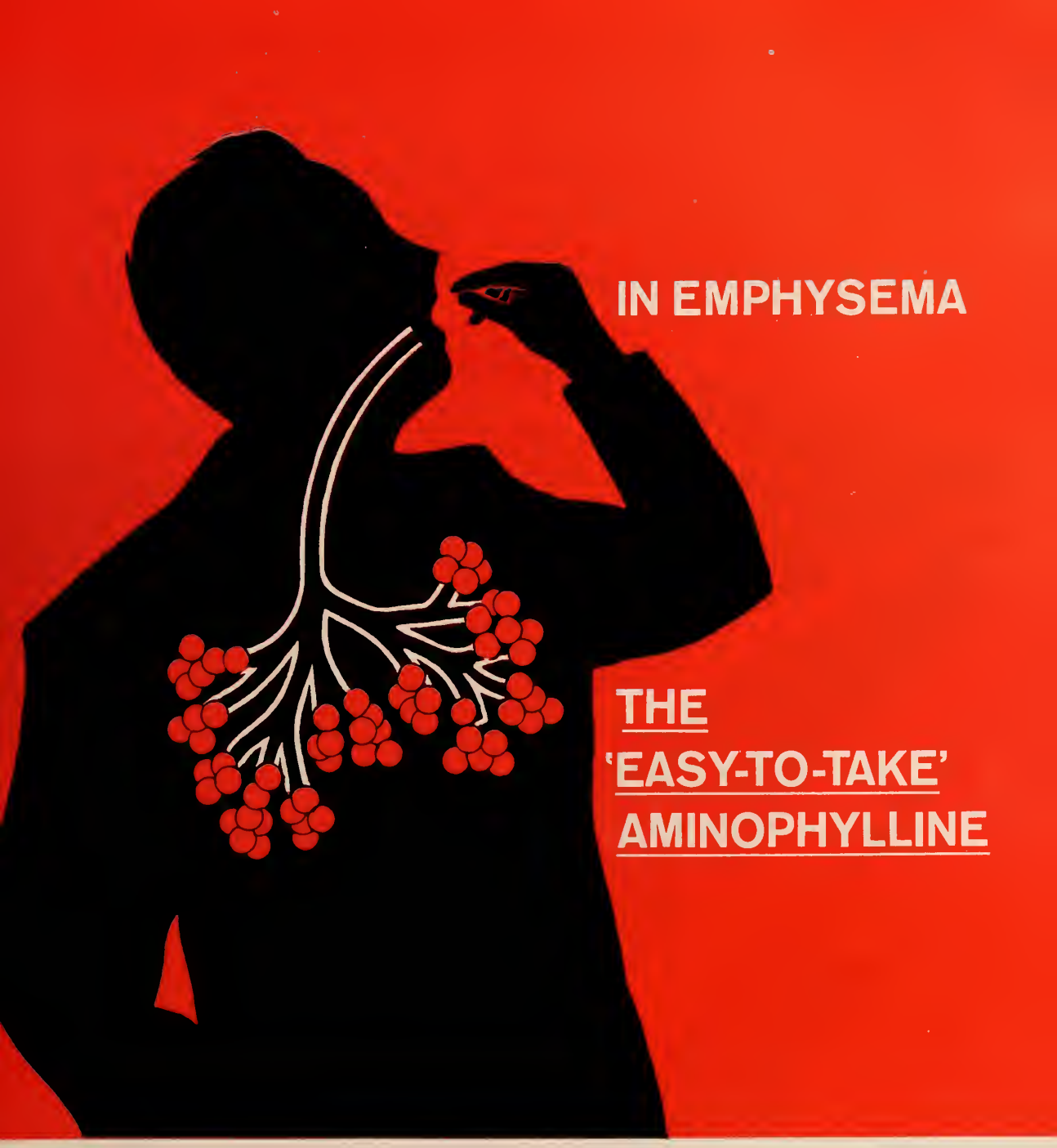


"George wants to know if it's okay to take his cold medicine now, Doctor, instead of seven o'clock?"

The long-continued action of Novahistine LP should help you both get a good night's sleep. Two tablets in the morning and two in the evening will usually provide round-the-clock relief by helping clear congested air passages for freer breathing. Novahistine LP also helps restore normal mucus secretion and ciliary activity—normal physiologic defenses against infection of the respiratory tract. Use cautiously in individuals with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Caution ambulatory patients that drowsiness may result. Each Novahistine LP tablet contains: phenylephrine hydrochloride, 25 mg., and chlorpheniramine maleate, 4 mg.

NOVAHISTINE® LP

DOW **PITMAN-MOORE** Division of The Dow Chemical Company, Indianapolis



IN EMPHYSEMA

THE 'EASY-TO-TAKE' AMINOPHYLLINE

Aminophylline dura-tabs®

prolonged-medication tablets 4½ gr. (0.3 Gm.)

Precautions: Use with caution in patients with poor renal function as a decreased rate of excretion may lead to accumulation and untoward reactions. Gastric irritation may occasionally be observed in certain patients sensitive to oral aminophylline.

Dosage: Adults, 1 to 2 Aminophylline Dura-Tabs each 8 or 12 hours, with food.

RARELY UPSET THE STOMACH

Oral aminophylline needn't disturb the stomach—nor a good night's sleep. Patients breathe easier all day, sleep better all night, as each Aminophylline Dura-Tab dose provides effective therapeutic activity for up to 12 hours. And unlike conventional tablets, AMINOPHYLLINE DURA-TABS seldom cause gastric distress. The special Dura-Tab process allows the gradual absorption of the medication from the intestinal tract with only a small fraction of the dose released in the stomach.

WYNN Pharmaceuticals, Inc., Phila., Pa. 19132 · Manufacturers of QUINAGLUTE® DURA-TABS®
(Quinidine Gluconate 5 gr.)

This "case history" runs to some 10,000 pages

This is a typical "case history" of one new drug — or, rather, a proposed new drug — assembled for submission to the U.S. Federal Food and Drug Administration. These volumes are the result of several years' work by thousands of professional and skilled personnel in just one pharmaceutical company's research laboratories, and by hundreds of physicians in medical schools, hospitals, and private practice. They cover every aspect of experience with this proposed new agent from chemical laboratory to clinic, from mouse to man. Each volume could conceivably represent hundreds of thousands of dollars of financial investment, countless hours of human effort. This veritable mountain of data stands behind every new agent offered to you by pharmaceutical manufacturers — a reassuring testimonial to the efficacy, safety and purity of the drugs you will prescribe today to lower the cost of disease to your patients.

Pharmaceutical Manufacturers Association
Pharmaceutical Advertising Council

1155 Fifteenth St., N. W., Washington, D.C. 20005



This message is brought to you as a courtesy of this publication on behalf of the producers of prescription drugs.

Why our Vitamin D Milk Now Contains Added Vitamin A.

The following is taken out of context from "The Effect of Vitamin A and Vitamin D Capsules upon the Incidence of Coronary Heart Disease and Blood Cholesterol" by F. C. H. Ross, M.B., B.S. (Melbourne) Medical Officer, Repatriation Department, and A. H. Campbell, M.D., Melbourne, M.R.A.C.P., Senior Specialist in Chest Diseases, Repatriation Department (from the Repatriation Chest Clinic, Caulfield, Victoria) The Medical Journal of Australia, August 19, 1961

(We suggest examination of the entire article as well as additional authorities cited at the conclusion of the quoted material.)*

"The effect of the vitamin A and vitamin D capsules upon the incidence of coronary heart disease was observed over five and a half years in 136 patients, with 271 patients serving as controls.

"Of the 407 patients observed for five and a half years or until death, 136 had received treatment with the vitamin A and vitamin D preparation for six months or longer, and 271 had not received the specified treatment. Of the treated group, 8 (5.8%) developed coronary heart disease compared with 43 (15.8%) of the control group.

"The difference is statistically significant . . .

"Following administration of the vitamin A and vitamin D preparation, there was a highly significant reduction (P 0.001) of the mean serum cholesterol level in a group of 13 males with an initial level of 250 mg. per 100 ml. or more. There was no significant change in the mean cholesterol level of seven males with an initial level of 249 mg. per 100 ml. or less.

". . . the Eskimos, who are reputed to have a fat-rich diet with a low incidence, of coronary heart disease, have a high vitamin A intake from fish and marine animal livers."

*Acta Medica Scandinavia, Vol. CLVI, fasc. IV, 1956, and 1967 material prepared for a thesis on cholesterol biosynthesis.

Roberts Perfection FOODS INC.

3400 South Orange Blossom Trail Telephone 425-7544
Post Office Box 3149 Orlando, Florida 32802

IRON DEFICIENCY

ANEMIA



Imferon®
(iron dextran injection)

There's as much iron . . . 250 mg. . . . in a 5 cc. ampul of Imferon (iron dextran injection) as in a pint of whole blood. When iron deficient patients are intolerant of oral iron . . . or orally administered iron proves ineffective or impractical . . . or if the patient cannot be relied upon to take oral iron as prescribed, Imferon (iron dextran injection) dependably increases hemoglobin and rapidly replenishes iron reserves. Precise dosage is easily calculated.

LAKESIDE

IN BRIEF: ACTION AND USES: A single dose of Imferon (iron dextran injection) will measurably begin to raise hemoglobin and a complete course of therapy will effectively rebuild iron reserves. The drug is indicated only for specifically-diagnosed cases of iron deficiency anemia and then only when oral administration of iron is ineffective or impractical. Such iron deficiency may include: patients in the last trimester of pregnancy; patients with gastrointestinal disease or those recovering from gastrointestinal surgery; patients with chronic bleeding with continual and extensive iron losses not rapidly replenishable with oral iron; patients intolerant of blood transfusion as a source of iron; infants with hypochromic anemia; patients who cannot be relied upon to take oral iron.

COMPOSITION: Imferon (iron dextran injection) is a well-tolerated solution of iron dextran complex providing an equivalent of 50 mg. in each cc. The solution contains 0.9% sodium chloride and has a pH of 5.2-6.0. The 10 cc. vial contains 0.5% phenol as a preservative.

ADMINISTRATION AND DOSAGE: Dosage, based upon body weight and Gm. Hb/100 cc. of blood, ranges from 0.5 cc. in infants to 5.0 cc. in adults, daily, every other day, or weekly. Initial test doses are advisable. The total iron requirement for the individual patient is readily obtainable from the dosage chart in the package insert. Deep intramuscular injection in the upper outer quadrant of the buttock, using a Z-track technique, (with displacement of the skin laterally prior to injection), insures absorption and will help avoid staining of the skin. A 2-inch needle is recommended for the adult of average size.

SIDE EFFECTS: Local and systemic side effects are few. Staining of the skin may occur. Excessive dosage, beyond the calculated need, may cause hemosiderosis. Although allergic or anaphylactoid reactions are not common, occasional severe reactions have been observed, including three fatal reactions which may have been due to Imferon (iron dextran injection). Urticaria, arthralgia, lymphadenopathy, nausea, headache and fever have occasionally been reported.

PRECAUTIONS: If sensitivity to test doses is manifested, the drug should not be given. Imferon (iron dextran injection) must be administered by deep intramuscular injection only. Inject only in the upper outer quadrant of the buttock, not in the arm or other exposed area.

CONTRAINDICATIONS: Imferon (iron dextran injection) is contraindicated in patients sensitive to iron dextran complex. Since its use is intended for the treatment of iron deficiency anemia only it is contraindicated in other anemias.

CARCINOGENICITY POTENTIAL: Using relatively massive doses, Imferon (iron dextran injection) has been shown to produce sarcoma in rats, mice and rabbits and possibly in hamsters, but not in guinea pigs. The risk of carcinogenesis, if any in man, following recommended therapy with Imferon (iron dextran injection) appears to be extremely small.

SUPPLIED: 2 cc. ampuls, boxes of 10, 5 cc. ampuls, boxes of 4, 10 cc. multiple dose vials.

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201



Special Article

Relative Value Studies

ROBERT E. ZELLNER, M.D.

Editor's Note: The following article is published in an effort to acquaint and inform physicians as to certain of the issues to be raised at the Annual Meeting, May 11-14, Americana Hotel, Bal Harbour.

T.M.

The topic I am to discuss is Relative Value Studies. Let me make it clear at the outset that when we are talking about relative values we are talking about fee schedules. The only point in discussing relative values at all is their relationship to doctors' fees. I would make it crystal clear that I dislike fee schedules. I think that I am no different from most physicians in this respect. I am sure that to the average physician in America today the concept of schedules designed to reflect the value of his personal services is repugnant. The connotation of rigidity of both patient need and service performed is as foreign to his thinking as it is to his experience. The implication of absolute equality of professional ability throughout the profession is obviously erroneous to the not so great and to the great alike. The inference that all cases of a given diagnosis require precisely the same amount of treatment is too ridiculous to warrant his consideration. He could not help but be opposed to such schedules on the basis of his knowledge of the practice of medicine.

But even more forcibly, although he may increasingly realize the need of some type of prepayment plan to help his patients meet the rising cost of modern medical care, past experience has led the physician to distrust and resent the interjection of a third party into the already complicated relationship between him and his patient. He has experienced misunderstanding and often criticism because his fee did not coincide with the indemnities furnished by some third party, indemnities usually relating by coincidence to the usual fees in his community. He has found that a minimum fee becomes a fixed fee and a maximum fee, which he is expected to accept without consultation. His experience with all that surrounds a schedule of medical fees has not only been irritating but often, and increasingly frequently, has appeared to threaten vitally the independence of his practice or even his professional existence. It is little wonder then that he has resisted the imposition of such fee schedules in the medical practice regardless of the purpose or adequacy of the schedule. This being true, why should we discuss the development of such a distasteful schedule? Most of us know the answer.

In the ever changing patterns of social, political and economic life, we, like all members of our society, have been inexorably caught up in the tide of change involving our scientific, economic and personal lives. We must continue our effort to mold this change, but we must also recognize and accept those changes which are becoming a part of our environment. For example, here in Florida alone Blue Shield pays out to doctors

Presented at the Ninth Annual Conference of Presidents and Secretaries, Jan. 28, 1967, Robert Meyer Motor Inn, Orlando.

something in excess of 20 million dollars a year plus another 40 million dollars through Medicare, and another two to three million dollars through the Office of Dependents' Medical Care. Workmen's Compensation pays something over 20 million dollars a year and in the nation at large the dollars involved in the payment of medical fees are numbered in the billions. The third party payment of medical care has become one of the largest businesses in the nation; there is no question of whether we approve or not, or whether we will even participate. To expect these programs to await our approval is gratuitous. To bury our heads in the sand in the hope that they will go away is stupid. The deed is done and we are in the midst of this expanding force. We must not only learn to live with it, but we must accept the challenge to mold it to practical ends which cannot and will not result in the deterioration of the quality of medical care for our patients. This is both a moral and an economic mandate, and we dare not ignore it.

Since schedules are to be written, it is only logical to conclude that we physicians should provide the basic structure upon which they are written. To do otherwise is to invite third parties to set values upon our services. Much as we dislike fee schedules, we must have a greater dislike for this latter alternative. To refuse to furnish the information as to the value of our services, which we alone can accumulate, is to invite continuing inequities and criticisms when we try to collect our normal fees from patients being indemnified on a schedule set by others.

How are we to accomplish this aim? The best and the most widely accepted means of creating comprehensive and complete fee schedules has been through the use of relative value studies. A relative value study is simply a comprehensive listing of medical and surgical procedures to each one of which a numerical value is assigned indicating the economic relationship of each procedure to all of the others without putting a dollar value on any of them. To convert a relative value schedule to a fee schedule a conversion factor must be applied. Obviously, the equitability of the resultant fee schedule will depend upon the equitability of the conversion factor. Fee schedules have been established from relative value studies using conversion factors which are unrealistically low. Such a fee schedule is very likely to be unacceptable to the doctor. This isn't the fault of the relative value study nor does it invalidate the study itself.

It is important that we understand how a relative value study is created. When the first study was made by the California Medical Association some 15 years ago, every doctor in California was asked to indicate his fee for each of approximately 100 procedures. In analyzing the data it was found that there did exist a mathematical relationship between the charges that doctors make for their services, although there might be considerable variation in the actual fee charged. For example, for one procedure, Dr. A charges $5.00; Dr. B. $10.00; and Dr. C, $15.00. For a second procedure, Dr. A charges $10.00; Dr. B, $20.00; and Dr. C, $30.00. It is easy to see that the relationship of procedure one to procedure two is 1:2. From this observation the California Relative Value Study was created. This was a revolutionary idea which appeared on the scene just as the Department of Defense was authorized to pay doctors in private practice on a fee for services basis for medical care of dependents of military personnel.

The California Study was used throughout the country to create fee schedules for use in this program. It wasn't long before many things were found wrong with it. In the first place, since only California doctors participated in the survey, it only reflected doctors' fees in California. By Florida standards, some of these were outrageously out of line. Since this was an initial effort, inevitably many other things were wrong with the study which were human errors of judgment and of calculation. Since that time, California Medical Association has resurveyed its membership three more times and has largely ironed out the inequities of its earlier studies. Incidentally, to date, the CMA has spent over $100,000 on its Relative Value Study. For us to have in Florida a Relative Value Study which is strictly a Florida product would require similar surveys by the Florida Medical Association and the outlay of large sums of money we don't have. Our present RVS is a Florida modification of the California Study using information which we acquired through a limited general survey, through information supplied by various specialty groups and from Blue Shield. It is by no means a perfect document. In fact, it badly needs revision now,

but it is better than nothing and it is more applicable to Florida than any other Relative Value Study now available.

Thanks to Blue Shield and the availability of computers to do the job, it is now possible for the Florida Medical Association to re-evaluate its Relative Value Study and to bring it up to date without the expenditure of large sums of money. Before I leave this subject, I would emphasize that the validity of any Relative Value Study depends upon its having a broad base. There are many values in our study which I think are out of line. I recognize, however, that the individual value represents a consensus of many doctors' opinions and it may be I who is out of line. Certain specialty societies have taken a proprietary interest in particular sections of the Study. While a doctor practicing in a highly specialized field may have a good idea about the relative values of various procedures within his own specialty, he is not likely to be qualified to relate his section to the entire Study, which incorporates all phases of medical practice; therefore, any revision which our Study has should not be accompanied by individual special interest groups but by information obtained from the entire spectrum of medical practice.

In recent months an idea has come upon the scene which is so simple and so attractive that it has been adopted by almost everybody as the answer to a doctor's prayer. This idea is that the "usual and customary" fee is the right fee, the fee that can be charged and will be paid without question. Everybody agrees that this is a great idea. But the hitch appears when one begins to define the terms. To any doctor "usual and customary" means what he personally usually and customarily charges a patient for a particular service. To the patient, to the third party and especially to Uncle Sam it has an entirely different meaning. It means not what a particular doctor usually and customarily charges but what every other doctor usually and customarily charges for that particular service. It isn't the doctor, then, who sets his own fee but all the other doctors in the community. When this has been done you have a fee schedule, and it is one whose accuracy the individual doctor has no earthly way of checking. If you don't believe that this is true, then I suggest that you read Public Law 89-97 in which the meaning of "usual and customary" is clearly defined.

In an arrangement of this sort, if a doctor's fee is higher than that indicated in the under the cover fee schedule he is told that his fee is above the usual and customary and he will have to reduce his fee. If his fee is lower than the indicated fee, nothing is said about it. So it boils down to the fact that irrespective of how much each of us might like the idea of using his own usual and customary fee, the only way that it would be possible to distribute the millions of dollars paid to doctors through the third party mechanism would be to have knowledgeable doctors sitting as claims adjustors reviewing each claim. Obviously, this is as absurd as it is impossible. Since it has to be done by a nonprofessional—clerks, if you will—there has to be some means whereby they can handle most claims. Only the unusual, even with Blue Shield, can be reviewed by a doctor. The only way this can be done is with a schedule of maximum allowances or with a relative value study to which someone has applied a conversion factor, which produces a fee schedule. This is done by Blue Shield, it's done by Medicare, it's done by Vocational Rehabilitation, it's done by the Florida Industrial Commission, it's done by any agency paying somebody else's medical bills. It is even done by those who claim to be paying "usual and customary" fees.

Where are these third party agencies going to get their information about the value of various doctors' services? The answer is "from wherever they can," but my contention is that the best source of information is the doctors themselves. At the last meeting of our House of Delegates we permitted the specter of imminent passage of the Medicare bill to becloud our judgment and we literally forebade the Florida Medical Association to represent the economic interest of its members. We were willing to ride out the storm on the good ship "usual and customary." Well, Gentlemen, it hasn't proven to be very seaworthy. We have been getting nowhere fast with people like the Florida Industrial Commission and we are not likely to do much better until we change our tack and once more act collectively in our own interest through the only organization that can represent us all, The Florida Medical Association.

In summary, I would like to restate these points:

1. Medical fee schedules in one form or another are going to be used for third party payment of fees for doctors' services, whether we like it or not.

2. Doctors are the best judges of the values of their own services.
3. The most equitable and satisfactory means of creating fee schedules is through utilizing well constructed, broad-based and up-to-date relative value studies with adequate conversion factors.
4. The Florida Medical Association is the best medium for effective representation of the economic interests of its members.

▶ Dr. Zellner, 515 South Orange Avenue, Orlando 32801.

Books

A Manual of Tropical Medicine. By George W. Hunter III, Ph.D., William W. Frye, M.D., Ph.D., and J. Clyde Swartzwelder, Ph.D. Pp. 931. 4th ed. Price $18.50. 323 illus. Philadelphia, W. B. Saunders Company, 1966.

Egg Implantation. Edited by G. E. W. Wolstenholme, OBE., M.A., F.R.C.P. and Maeve O'Connor, B.A. Pp. 112. Price $3.50. 25 illus. Boston, Little, Brown and Company, 1966.

Histones. Their Role in the Transfer of Genetic Information. Edited by A. V. S. de Reuck, M.Sc., D.I.C., A.R.C.S. and Julie Knight, B.A. Pp. 115. Price $3.50. 26 illus. Boston, Little, Brown and Company, 1966.

Appraisal of Current Concepts in Anesthesiology. Edited and Assembled by John Adriani, M.D. Pp. 522. Vol. 3. Price $10.85. St. Louis, The C. V. Mosby Company, 1966.

Ocular Therapy, Complications and Management. Edited by Irving H. Leopold, M.D. Pp. 157. Illustrated. Price $11.00. St. Louis, The C. V. Mosby Company, 1966.

Obstetrics and Gynecology. By J. Robert Willson, M.D., Clayton T. Beecham, M.D. and Elsie Reid Carrington, M.D. 3rd ed. Price $15.50. 346 illus. St Louis, The C. V. Mosby Company, 1966.

Radiology in World War II. Edited by John Roy Coates Jr., M.C., U.S.A. Pp. 1085. Price $8.25. Illustrated. Office of the Surgeon General, Department of the Army, Washington, D.C., 1966.

Neuro-Ophthalmology. Symposium of the University of Miami and the Bascom Palmer Eye Institute. Compiled and edited by J. Lawton Smith, M.D. Pp. 349. Price $25.00. 200 illus. St. Louis, The C. V. Mosby Company, 1967.

Congestive Heart Failure. By Ralph M. Myerson, B.S., M.D., F.A.C.P. and Bernard H. Pastor (deceased), A.B., M.D., F.A.C.P. Pp. 174. Illustrated. Price $12.85. St. Louis, The C. V. Mosby Company, 1967.

Atlas of Vascular Surgery. By Falls B. Hershey, M.D., F.A.C.S. and Carl H. Calman, M.D., F.A.C.S. Second edition. Pp. 318. Illustrated. Price $19.50. St. Louis, The C. V. Mosby Company, 1967.

93rd Annual Meeting
May 11-14, 1967
Americana Hotel
Bal Harbour



New view of an oral contraceptive at work

Although suppression of ovulation remains the primary mode of action of oral contraceptives, newer knowledge indicates that products like Norinyl-1—which provide the combined action of both low-dosage progestogen and estrogen for the full treatment cycle—offer multiple contraceptive action that helps explain their unexcelled record of effectiveness. This report explores the secondary protective mechanisms against unwanted pregnancy offered by combined hormonal administration and the importance of the progestational agent in making such multiple contraceptive action possible.

Accumulating evidence has indicated that sparse, highly viscous cervical mucus has an adverse effect on the motility and survival of spermatozoa.

The estrogen-opposing progestational ingredient of Norinyl-1 (norethindrone 1 mg. with mestranol 0.05 mg.) reverses the usual midcycle picture of a thin, watery cervical mucus. The result—a built-in barrier that inhibits sperm from reaching the ovum should one be released. The inset in the adjoining photograph shows immobile spermatozoa as they appear in cervical mucus taken from a patient treated with Norinyl-1.

See last page for contraindications, precautions, side effects and dosage.

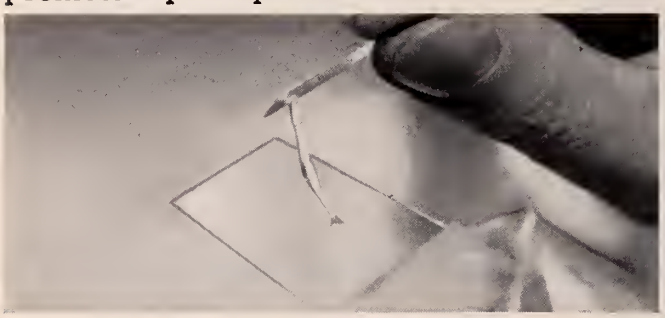
How the estrogen-opposing action of Norinyl-1 creates a hostile cervical mucus

Normally estrogen activity during the fertile midcycle stimulates the production of cervical mucus. The mucus at this time is profuse and watery—allowing maximum sperm motility and promoting penetration.
But what happens when Norinyl-1 is administered? Its potent progestogen, norethindrone, opposes estrogen stimulation of cervical mucus. Consequently, the amount of mucus decreases and its viscosity increases. This results in a sparse but thick mucus barrier that diminishes the vitality of the sperm and impairs its powers of penetration.

How hostile cervical mucus supports contraceptive action

The importance of these observations to the effectiveness of Norinyl-1 has been noted in a report on 89 patients taking this medication.* In all instances, cervical mucus obtained from cycle day 5 to cycle day 29 appeared scant and thick and exhibited little or no Spinnbarkeit. In the opinion of this investigator, the effect on cervical mucus may be sufficient to prevent conception. *Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965.

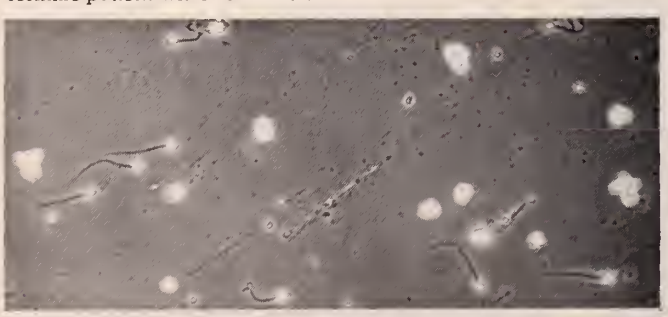
Normal cervical mucus at midcycle in untreated patient permits sperm motility... promotes sperm penetration.



Cervical mucus is thin and watery with a stretchability (Spinnbarkeit) of 15 to 20 cm.



Thin, watery mucus crystallizes into this well-defined, fernlike pattern within a minute.

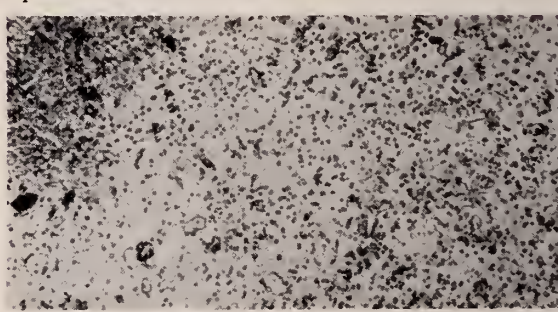


Spermatozoa appear healthy, are active and freemoving.

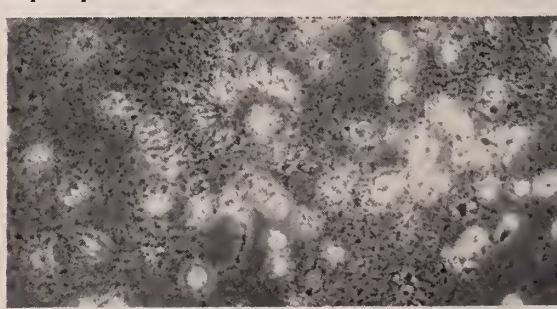
Hostile cervical mucus at midcycle produced by Norinyl-1 impairs sperm vitality... inhibits penetration.



Cervical mucus is scanty, thick and viscous. Spinnbarkeit is 1 cm. or less.



In thick, hostile cervical mucus the fern pattern is poorly defined or absent.

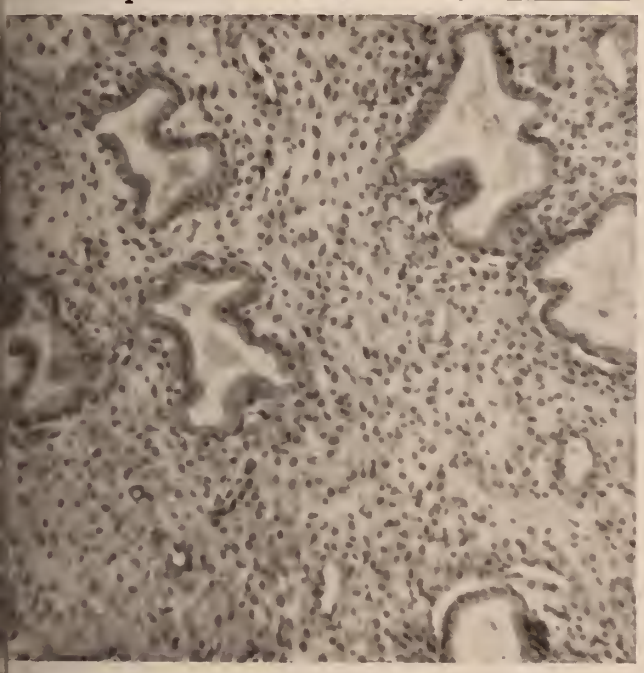


Immobile spermatozoa as they appear in cervical mucus taken from a patient treated with Norinyl-1.

An endometrium unreceptive to nidation– another supporting contraceptive action of Norinyl-1

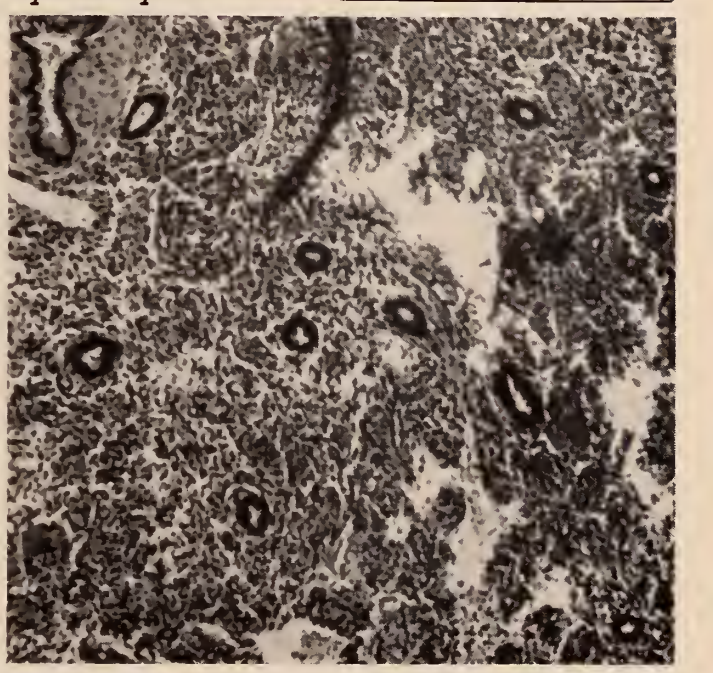
et us suppose that an ovum is released—as occurs in an ccasional, rare case—and somehow a sperm succeeds in enetrating the cervical mucus barrier? Should this come about, ne additional action of Norinyl-1 may protect the patient from nwanted pregnancy—progestogen intake makes endometrial ssue unreceptive to implantation.

ndometrium of ntreated patient



rmally the endometrium progresses through roliferative phase stimulated by estrogen and a cretory phase stimulated by progesterone. ring the secretory phase the endometrium is ceptive to the fertilized ovum.

Unreceptive endometrium produced by Norinyl-1



When Norinyl-1 is administered its progestogen component—norethindrone—accelerates the secretory phase, suppressing glandular development. From day 11 on, secretory action is no longer present. The result is that during the latter half of the cycle the endometrium becomes unreceptive to egg implantation.

last page for contraindications, precautions, side effects and dosage.

new Norinyl®-1 tablets

(norethindrone 1mg ē mestranol 0.05mg)

for multiple contraceptive action

effective fertility control
on half the previous dosage

maintains ratio
of the established
norethindrone/mestranol
combination

lower cost

new Norinyl-1®

(norethindrone 1mg. c̄ mestranol 0.05mg.) tablets

Reduction of oral contraceptive dosage to lowest effective levels h become a well-accepted principle of conservative medical practi In keeping with this view, Norinyl is now available in a new streng in which *both* norethindrone and mestranol are reduced 50 perce Studies show that Norinyl-1 achieves fertility control with only 1 mg. of combined progestogen and estrogen per tablet.

Norethindrone was first reported for use as a progestational agent human beings in 1955. Norethindrone 2 mg. with mestranol 0.1 mg., an oral contraceptive, is currently in use by over 2,000,000 wom Clinical experience now establishes that Norinyl-1 also amply me the criteria of reliability and safety.*

*Symposium on Low-Dosage Oral Contraception, Palo Alto, Calif., July 15, 1965.

PRESCRIBING INFORMATION

Contraindications: 1. Patients with thrombophlebitis or with a history of thrombophlebitis or pulmonary embolism. 2. Liver dysfunction or disease. 3. Patients with known or suspected carcinoma of the breast or genital organs. 4. Undiagnosed vaginal bleeding.

Warnings: 1. Discontinue medication pending examination if there is sudden partial or complete loss of vision or if there is a sudden onset of proptosis, diplopia, or migraine. If examination reveals papilledema or retinal vascular lesions, medication should be withdrawn. 2. Since the safety of Norinyl-1 in pregnancy has not been demonstrated, it is recommended that for any patient who has missed two consecutive periods, pregnancy should be ruled out before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule, the possibility of pregnancy should be considered at the time of the first missed period. 3. Detectable amounts of the active ingredients in oral contraceptives have been identified in the milk of mothers receiving these drugs. The significance of this dose to the infant has not been determined.

Precautions: 1. The pretreatment physical examination should include special reference to breast and pelvic organs, as well as a Papanicolaou smear. 2. Endocrine and possibly liver function tests may be affected by treatment with Norinyl-1. Therefore, if such tests are abnormal in a patient taking Norinyl-1, it is recommended that they be repeated after the drug has been withdrawn for 2 months. 3. Under the influence of estrogen-progestogen preparations, preexisting uterine fibroids may increase in size. 4. Because these agents may cause some degree of fluid retention, conditions that may be influenced by this factor, such as epilepsy, migraine, asthma, cardiac, or renal dysfunction, require careful observation. 5. Although a cause and effect relationship has not been established, Norinyl-1 should be used with caution in patients with a history of cerebrovascular accident. 6. In relation to breakthrough bleeding, as in all cases of irregular bleeding per vaginam, nonfunctional causes should be borne in mind. In cases of undiagnosed vaginal bleeding, adequate diagnostic measures are indicated. 7. Patients with a history of psychic depression should be carefully observed and the drug discontinued if the depression recurs to a serious degree. 8. Any possible influence of prolonged Norinyl-1 therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study. 9. A decrease in glucose tolerance has been observed in a small percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be carefully observed while receiving Norinyl-1 therapy. 10. Because of the occasional occurrence of thrombophlebitis and pulmonary embolism in patients taking oral contraceptives, the physician should be alert to the earliest manifestations of the disease. A cause and effect relationship has not been demonstrated. 11. Because of the effects of estrogens on epiphyseal closure, Norinyl-1 should be used judiciously in young patients in whom bone growth is not complete. 12. The age of the patient constitutes no absolute limiting factor, although treatment with Norinyl-1 may mask the onset of the climacteric. 13. The pathologist should be advised of Norinyl-1 therapy when relevant specimens are submitted.

Side Effects: The following adverse reactions have been observed with varying incidence in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms, breakthrough bleeding, spotting, change in menstrual flow, amenorrhea, edema, chloasma, breast changes (tenderness, enlargement and secretion), loss of scalp hair, change in weight (increase or decrease), changes in cervical erosion and cervical secretions, suppression of lactation when given immediately postpartum, cholestatic jaundice, erythema multiforme, erythema nodosum, hemorrhagic eruption, migraine, rash (allergic), itching, rise in blood pressure in susceptible individuals, mental depression.

The following occurrences have been observed in users of oral contraceptives. A cause and effect relationship has not been established: thrombophlebitis, pulmonary embolism, neurooocular lesions.

The following laboratory results may be altered by the use of oral contraceptives creased bromsulphalein retention and o hepatic function tests, coagulation tests crease in prothrombin, factors VII, VIII, IX X), thyroid function (increase in PBI and b nol extractable protein-bound iodine and crease in T^3 values), metapyrone test, pregn diol determination.

Other side effects reported to have occu in association with use of this drug are c ness, hirsutism, pains in legs, back, chest abdomen, dysuria, drowsiness, vaginal charge, libido increased and decreased, c tions, hypermenorrhea, hypomenorr increased appetite, G.U. infections, vari veins, abdominal fullness, acne, headc nervousness, allergies, blurred vision, pai eyes, and itching in eyes. For complete clin data, see package insert.

Dosage and Administration: 1. One table Norinyl-1 is administered orally for 20 c beginning on day 5 of the menstrual c (Count day 1 of the cycle as the first da menstrual bleeding.) Repeat this dosage sc ule for each cycle. 2. If no menstrual pe occurs after a cycle of treatment (20 tablet which patient adhered to the schedule, th tient must be instructed to resume taking Norinyl-1 tablets 7 days after the previou day course was completed. For example, if last pill of a previous cycle had been take a Sunday, then a new cycle of treatment sh begin on the following Sunday. 3. In the partum woman, it is recommended that first cycle of treatment should begin on d of the first menstrual cycle. However, Nori should not be administered during lactatior

Availability: Norinyl-1 (norethindrone 1 with mestranol 0.05 mg.)—Dispensers of 20 60 and bottles of 250 tablets.

norethindrone — an original steroid from

SYNTEX LABORATORIES INC., PALO ALTO, CALIF.

In Florida - - -
These Syntex men serve the physician



John Bowling
Opa Locka, Florida
624-4864



William Colson
Jacksonville, Florida
721-0905



Ernest Haydel
Mobile, Alabama
342-2660



Robert Margolin
Miami, Florida
271-3381



B. Frank Singletary
Orlando, Florida
647-0738



Robert Vivian
Lakeland, Florida
682-3571

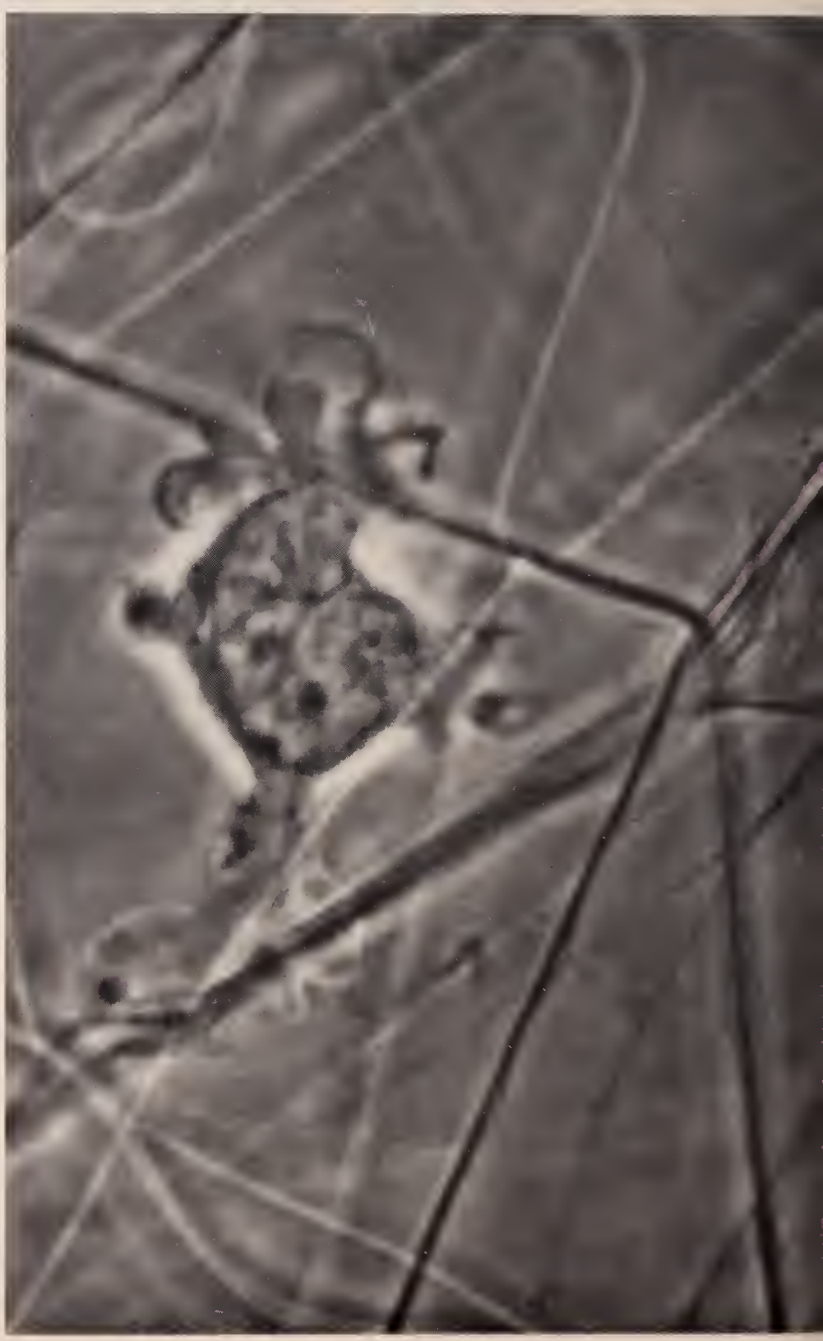
SYNTEX
LABORATORIES INC PALO ALTO CALIF

INFLAMMATION:
A cellular fight for life

A SYNTEX REPORT based on recently developed hypotheses about topical corticosteroids, including the cellular theories of inflammation by Thomas F. Dougherty, Ph.D., University of Utah.

You are looking at a fibroblast fighting for life. This cell—one of the most common found in connective tissue—has literally been poisoned by cytotoxins released from other cells that have ruptured. Soon, if the abnormal activity of this fibroblast does not cease, it, too, will rupture and die—one more casualty in the inflammatory wave of destruction precipitated by injury.

Until a short time ago no one had ever witnessed such a scene at the cellular level. Now, through advanced cinemicrographic techniques, it is possible to view and photograph the inflammatory process as produced experimentally in living animal tissue. This method permits new insight into the mechanism of inflammation and the role of corticosteroids in therapeutic management. Equally important, these techniques shed new light on factors that may make one corticosteroid more effective than another—factors that can be correlated with other chemical, biologic, and clinical parameters.

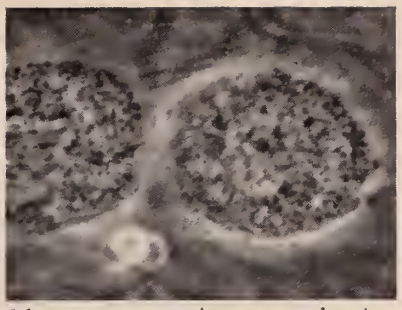


Visual evidence of how corticosteroids influence ne inflammatory reaction

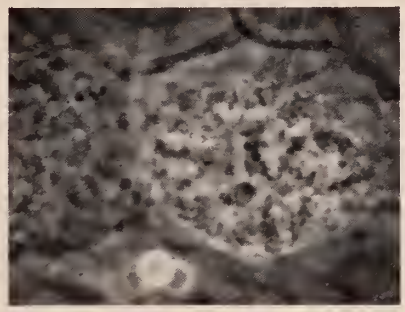
Working with phase-contrast cine-nicrography on living animal tissue, Doctors Thomas F. Dougherty and David Berliner of the University of Utah College of Medicine have actu-lly filmed cellular events that occur uring the inflammatory reaction. his remarkable study* and addi-onal work by these investigators, as ell as by others, have established a ew theoretical biologic basis for the ntiinflammatory effect of the corti-osteroids. (It must be noted that her theories, such as the lysosome so-called "suicide bag" theory, ave been postulated, although it is uite likely that there are more milarities than differences among ne various theoretical models.)

The inflammatory wave of destruction

this investigation an injurious in-ction of gelatin is used to set off an flammatory reaction in living ouse tissue. What follows is a wave destructive cellular activity that mprises the inflammatory re-onse to injury. Mast cells (which ntain heparin, serotonin and hista-ine) take up water, swell and rup-re, releasing their contents, which e toxic outside the mast cell wall. ese toxins, in turn, cause disinte-ation of other cells (such as fibro-sts) and the release of additional ic material. Capillaries, too, take water and leak unformed blood ments, causing edema. And poly-rphonuclears, lymphocytes and thelial cells invade the inflamed e. As a result of all these changes, cellular environment reaches a te of turmoil.



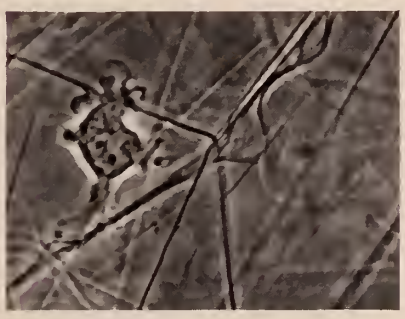
Phase-contrast microscopy showing mast cell before injury.



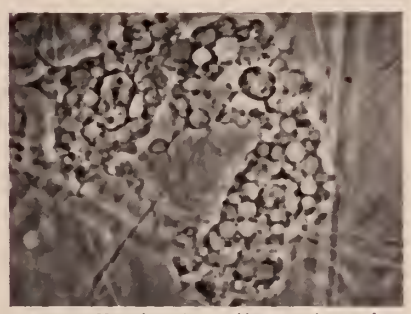
Mast cell (after injury) has broken up and released cytotoxins.

How corticosteroids change the picture

Corticosteroids appear to virtually stop the abnormal cellular activity that constitutes the inflammatory reaction. This permits the body's natural resources to clear up the inflamed area and repair the damaged tissue. This interpretation is supported by the fact that when the injurious gelatin solution is injected simultaneously with a corticosteroid — Synalar (fluocinolone acetonide) — the inflammatory pattern simply does not develop.



Fibroblast in high state of activity, much distorted.



Mast cells showing effects of corticosteroid action: cells are normal in size, shape and activity.



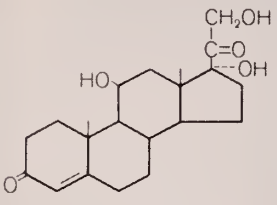
In summarizing his study Doctor Dougherty states: "...we also feel this work may explain why one corticosteroid helps a patient more rapidly and effectively than another. If it does, it is because one corticosteroid is the fastest, most effective inhibitor of the series of inflammatory events at the tissue level."

*A New View of Corticosteroid Action in Inflammatory Dermatoses, a film based on this study, is now available from your Syntex representative.

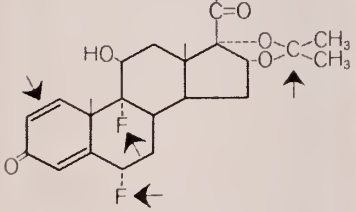
See last page for contraindications, precautions, side effects and dosage.

How advances in chemical design have achieved greater steroid potency

The chemical modification of corticosteroid molecules from the advent of hydrocortisone to the development of Synalar (fluocinolone acetonide) is a prime example of how biochemists can "design" to increase therapeutic activity and minimize undesirable side actions. Below, for example, we see the important changes that were made in reference to the hydrocortisone molecule to produce fluocinolone acetonide, one of the most active of all topical corticosteroids. As a result, a 0.01% preparation of Synalar (fluocinolone acetonide) has been reported to do the work of a 1% hydrocortisone product containing 100 times more cortiscosteroid. And it can often do it more effectively.



Hydrocortisone

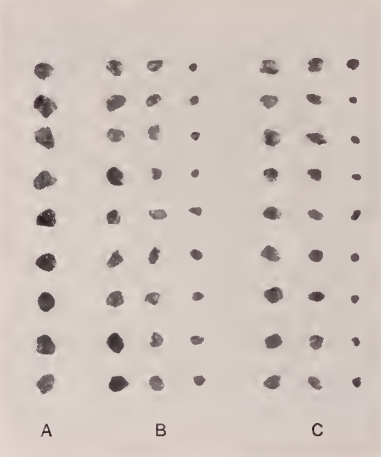


Fluocinolone Acetonide (Synalar)

- *a double bond between carbons 1 and 2*
- *fluorine substitutions at* both *the 6-α, and the 9-α positions*
- *the addition of the acetonide at the 16-α, 17-α positions, thus providing one of the most potent topical corticosteroids available.*

How bioassay tests are used to "predict" therapeutic potential

Biologic assays are another tool used by researchers to help establish the relative activity of corticosteroids. To date no single method of assaying corticosteroid activity has emerged as the ideal "yardstick" for predicting therapeutic potential. Taken together, however, these methods have proved useful. When such tests are run on various corticosteroids, a definite order of corticosteroid activity becomes evident. Compounds with the highest order of activity may be expected to merit clinical trial to establish their high therapeutic potential. When assayed by these methods, fluocinolone acetonide (Synalar) emerges as one of the most active topical corticosteroids, milligram for milligram, available for clinical application today.



THE THYMUS INVOLUTION ASSAY[1-4] is run on adrenalectomized rats. The sizes of the glands are measured, and the degree of involution caused by the steroid is determined as an indication of its potency. In the above photo, the comparative involution of thymus glands achieved with hydrocortisone and Synalar (fluocinolone acetonide) is shown. Untreated controls (A) show normal size. Group B – injected with 1, 2 and 4 mg. of hydrocortisone – show progressively smaller thymuses as does Group C – injected with fluocinolone acetonide – but with only 1/500th the dose of hydrocortisone.



THE ANTIGRANULOMA ASSAY[1-4] also utilizes adrenalectomized rats. Granulomas are induced by subcutaneous implantation of cotton pellets on either side of the thorax. The degree of granuloma inhibition achieved by a steroid reflects its potency. The above photo shows the inhibition of granuloma formation achieved with hydrocortisone and Synalar (fluocinolone acetonide). Untreated controls (A) show large, red granulomas adhering to the pellets. Group B, receiving hydrocortisone and Group C, receiving fluocinolone acetonide, show little, if any, granuloma formation. Fluocinolone acetonide produced the same effect as hydrocortisone with only 1/500th the dose. This assay, as well as the thymus involution assay, measures systemic rather than topical corticosteroid activity. Nevertheless, results by these methods correlate well with other assays and with the milligram potencies of topical steroids in current clinical use.

Worldwide clinical experience confirms the predictable therapeutic potential of Synalar

t is particularly gratifying that the romise of the advanced chemical lesign and high order of bioassay ac- ivity of Synalar (fluocinolone ace- onide) has been confirmed by videspread therapeutic application. ndeed, the impressive clinical re- ponse rate of Synalar has been docu- nented in no fewer than 232 papers rom 22 countries.

Representative Clinical Results with Synalar*

Efficacy Documented in over 4,000 Patients

Condition	Number of Publications	Number of Patients	Significant Improvement†
Contact Dermatitis	27	750	713
Eczematous Dermatitis	21	472	409
Seborrheic Dermatitis	18	442	426
Atopic Dermatitis	24	460	426
Psoriasis	36	1,699	1,510
Neurodermatitis	18	351	324
Total	144	4,174	3,808

*Complete bibliography on request.

†Expressed by the authors as excellent, very good, good, complete remission of inflammation, etc.

RESCRIBING INFORMATION
or initiation of therapy: Cream 0.025%, and 15 Gm. tubes, 425 Gm. jars; *for mollient effect:* Ointment 0.025%, 15 m. tubes; *for maintenance therapy:* ream 0.01%, 15 and 45 Gm. tubes, 120 m. jars; *for intertriginous or hairy tes:* Solution 0.01%, 20 cc. and 60 cc. astic squeeze bottles; *for infected in- mmatory dermatoses:* Neo-Synalar® ream (0.025% fluocinolone acetonide, eomycin sulfate, equivalent to 0.35% eomycin base), 5 and 15 Gm. tubes. ONTRAINDICATIONS: Tuberculous, fungal, id most viral lesions of the skin, (in- uding herpes simplex, vaccinia, and ricella). Not for ophthalmic use. Con- indicated in individuals with a his- ry of hypersensitivity to any of the mponents. PRECAUTIONS: Synalar prep- ations are virtually nonsensitizing and nirritating. However, the solution may oduce burning or stinging when ap- ed to denuded or fissured areas. In me patients with dry lesions, the solu- n may increase dryness, scaling or hing. While topical steroids have not en reported to have an adverse effect pregnancy, the safety of their use on egnant females has not absolutely en established. Therefore, they should t be used extensively on pregnant pa- nts, in large amounts, or for pro- longed periods of time. Prolonged use of any antibiotic may result in overgrowth of nonsusceptible organisms; if this occurs, appropriate therapy should be instituted. When severe local infection or systemic infection exists, the use of systemic antibiotics should be considered, based on susceptibility testing. SIDE EFFECTS: Side effects are not ordinarily encountered with topically applied corticosteroids. As with all drugs, however, a few patients may react unfavorably to Synalar under certain conditions. The neomycin in Neo-Synalar Cream rarely produces allergic reactions.

REFERENCES: 1. Lerner, L. J., Bianchi, A., Turkheimer, A. R., Singer, F. M., and Borman, A.: Anti-inflammatory steroids: potency, duration and modification of activities. Ann NY Acad Sci 116:1071 (Aug. 27) 1964. 2. Idem: Comparison of anti-granuloma, thymolytic and glucocorticoid activities of anti-inflammatory steroids. Proc Soc Exp Biol Med 116:385 (June) 1964. 3. Ringler, A.: Activities of adrenocorticosteroids in experimental animals and man, in Dorfman, R. I.: Methods of hormone research, New York, Academic Press, 1964. vol. III. pp. 234-280. 4. Gubersky, V. R.: To be published.

fluocinolone acetonide — an original steroid from
SYNTEX
LABORATORIES INC., PALO ALTO, CALIF.

For inflammatory dermatoses... by any measure a topical corticosteroid of choice

Synalar® (fluocinolone acetonide)

Milligram for milligram one of the most active topical corticosteroids available

Rapid and predictable in antiinflammatory and antipruritic activity

Results often comparable to those of systemic corticosteroids with fewer hazards



Public Health Topics

Fragile Physicians

The majority of physicians in Florida are males. Unfortunately, members of this sex are prone to die younger than the females; however, the fact is not necessarily a cause for urgently notifying your patients to select a female physician to care for their illnesses.

That more men die than women is an interesting phenomenon prevalent throughout the United States and the remainder of the Western World of industrialized nations. In Florida the male excess of total deaths increased from 15% in 1920 to 81% in 1960. Recognizing the disproportionate mortality, some anthropologists have suggested that the ratio of male to female deaths is the best index to Western culture. So far there have been no completely satisfactory explanations for the enigma. An awareness of it has existed since the mid-1600's.

One explanation is that females are protected and coddled, consciously and subconsciously. From babyhood they "are highly valued and given preferential treatment. In innumerable ways, they are given the most and the best of the resources available for both sexes."[1]

Another explanation is that women seek medical care more often and at the first indication of illness. Usually in the offices of most physicians, there are more females than males.

Some afternoon when it appears the receptionist has been overly enthusiastic in scheduling your appointments, peek at the waiting patients. Chances are you will see a room full of women and only a few men. Among the female patients, did you find principally minor illnesses that without proper attention could have developed into more serious conditions? How many times did you remark that it was a good thing the patient did not delay seeking care?

What about you? Are you a physician who believes in medical care for everyone — but himself?

A few years ago, the American Medical Association provided the opportunity for physicians to have a physical checkup at some convenient time while they were attending the various functions composing an annual meeting. Out of the thousands who should have taken advantage of the opportunity, only a few did. Some knowledge of the attitude of those who passed up the examination would have been interesting. No doubt, like other men, a few considered those being examined as rather weak, too concerned about their own wellbeing. Others may have shrugged their shoulders and counseled with themselves: "It can't happen to me."

Yet, these physicians insist that their wives have an annual Papanicolaou smear, other ex-

amination procedures for carcinoma and the blood sugar test for incipient diabetes. This disease once was considered statistically and physiologically more severe in females. In recent years, it has produced a higher male mortality.

The concern of husbands is responsible to some degree for wives admitting more quickly that they are ill and in need of medical care. This is understandable; women have the responsibility for the care of children, for maintaining a home. But they take advantage of the opportunities that have come to be associated with a longer life. They insist that their husbands do the same.

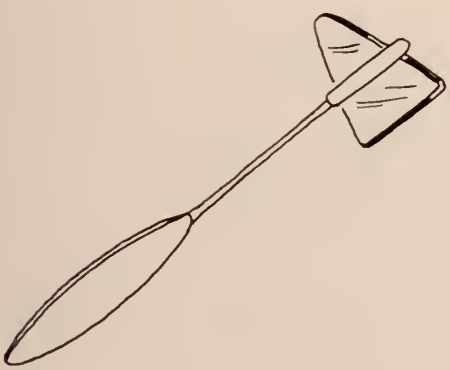
In the medical community, the physician could cooperate by changing his attitude about himself. He could accept the counsel of his wife. He also could seek to instill new health habits in his male patients, based upon respect for the sex difference in mortality.

Alone, the physician likely cannot change an entire cultural pattern determining the manner in which we view the different sexes. His apparent success in altering such an entrenched cultural habit as smoking gives promise of the eventual successful role the medical profession may play in altering other more deeply rooted cultural practices as they relate to health.

Reference

Sowder, W .T., et al: Man to Man Talk About Women . . . and Men, Monograph No. 10, 1966, Florida State Board of Health, p. 10.

James O. Bond, M.D.
Assistant State Health Officer
Florida State Board of Health
Tampa



93rd Annual Meeting, May 11-14, 1967
Americana Hotel, Bal Harbour

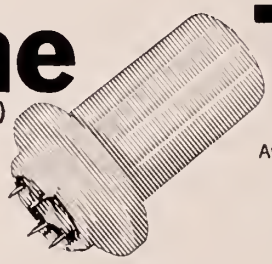
what time is it?

For the past
two years
there's been
one new case
of active tuberculosis
reported for every
four thousand
of U.S. population.

it's time to tine.

Tuberculin, Tine Test

(Rosenthal) Lederle



Available in 5's and 25's.
Order now
from your pharmacist
or your Lederle
representative.

LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York

Lederle

414-G-4046R

DEPRESSION



NORPRAMIN®
(desipramine hydrochloride)

ANTIDEPRESSANT FOR RAPID IMPROVEMENT

At the recommended dosage level —initially, 150 mg. per day— gratifying remission of the signs and symptoms of depression typically begins in 2-5 days. Its specificity for depression, rapidity of action and usually mild side effects are significant reasons for prescribing NORPRAMIN (desipramine hydrochloride) in depression of any type . . . any degree of severity.

A few patients, sensitive to central nervous system stimulants may become restless as depression is lifted—in such cases dosage may be reduced or a tranquilizer added.

LAKESIDE

IN BRIEF:

INDICATIONS: In depression of any kind —neurotic and psychotic depressive reactions; manic-depressive or involutional psychotic reactions.

CONTRAINDICATIONS: Glaucoma, urethral or ureteral spasm, recent myocardial infarction, severe coronary heart disease, epilepsy. Should not be given within two weeks of treatment with a monoamine oxidase inhibitor.

RELATIVE CONTRAINDICATIONS: (1) Patients with a history of paroxysmal tachycardia. (2) Patients receiving concomitant therapy with thyroid, anticholinergics or sympathomimetics may experience potentiation of effects of these drugs. (3) Safety in pregnancy has not been established.

PRECAUTIONS: (1) Outpatient use of desipramine hydrochloride should not be substituted for hospitalization when risk of suicide or homicide is considered grave. (2) If serious adverse effects occur, reduce dosage or alter treatment. (3) In patients with manic-depressive illness a hypomanic state may be induced. (4) Discontinue drug as soon as possible prior to elective surgery.

ADVERSE EFFECTS: Side effects, usually mild, may include: dry mouth, constipation, dizziness, palpitation, delayed urination, "bad taste," sensory illusion, tinnitus, anxiety, agitation and stimulation, insomnia, sweating, drowsiness, headache, orthostatic hypotension, flushing, nausea, cramps, weakness, blurred vision and mydriasis, rash, tremor, allergy, agranulocytosis, altered liver function, ataxia, and extrapyramidal signs.

DOSAGE: Optimal results are obtained at a dosage of 50 mg., t.i.d. (150 mg./day). **SUPPLIED:** NORPRAMIN (desipramine hydrochloride) tablets of 25 mg.; bottles of 50, 500 and 1000; and tablets of 50 mg., in bottles of 30, 250 and 1000.

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201

Soyalac SOLVES THE PROBLEM

...and BABY APPROVES!

Baby has a thing or two to say about a hypo-allergenic, milk-free diet!

Soyalac is the good-tasting, fibre-free formula that infants readily accept. The exclusive Soyalac process results in a consistency much like milk, with a light, creamy color—and nut-like flavor but without a trace of sediment.

Soyalac satisfies the infant. Strikingly similar to mother's milk, it provides protein of high biologic value and balanced nutrients. Clinical data furnish evidence of Soyalac's excellence in promoting normal growth and development.





Free Booklet and Samples

A request on your professional letterhead or prescription form will bring to you complete information and a supply of samples.

Soyalac

a product of

LOMA LINDA FOODS

MEDICAL PRODUCTS DIVISION

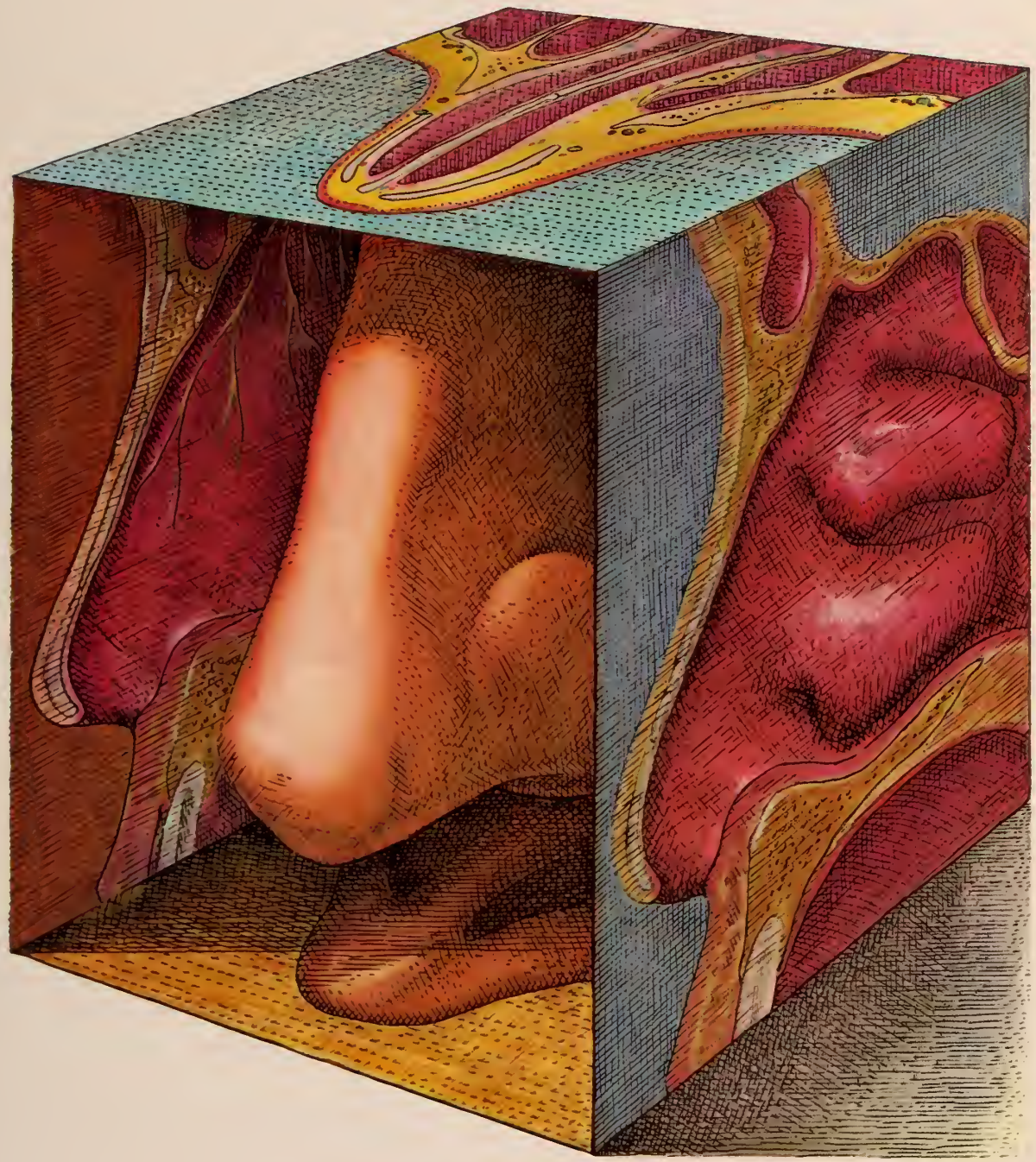
RIVERSIDE, CALIFORNIA

Mount Vernon, Ohio, U. S. A.

spring 1967

DORSEY Season

A journal within a journal published quarterly in the interests of better medicine by Dorsey Laboratories, a division of The Wander Company, Lincoln, Nebraska. Address communications to Raymond C. Pogge, M. D., Director of Medicine.



this issue: the ubiquitous world of summer allergies



the ubiquitous world of summer allergies

Donald L. Unger, M.D. • Clinical Assistant Professor, Department of Medicine (Allergy), Stritch School of Medicine (Loyola).

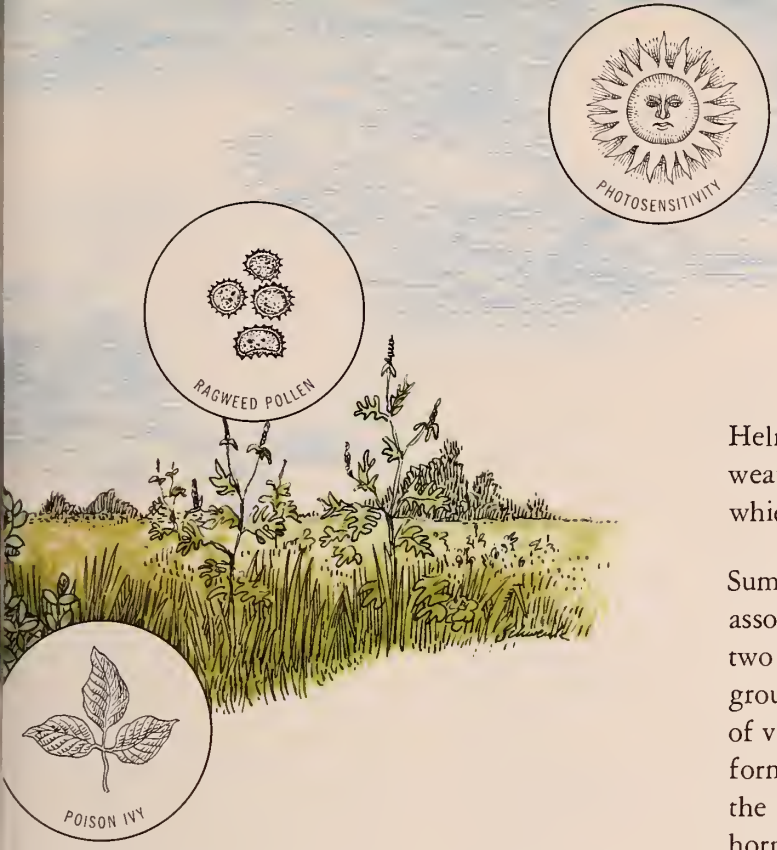
In the Spring a young man's fancy lightly turns to thoughts of—allergies. This is at least true of the 10% of the population who have hay fever and the 4% who have asthma.[1] The snow melts, the trees blossom and the noses run. Patients who were fine all winter may not be enthralled by the sight of the first robin or the blossoming of a crocus, for their appearances may precede the "sneezin' season."

Allergies in general can be divided into winter allergies and summer allergies. In the winter the main problems are inside the house: e.g. dogs, cats, dust and feathers. Houses in the northern half of the country become so dry that it becomes essential to add humidity to the home; this is a far cry from the damp summer months with the moldy basements and need for dehumidifiers.

Early in April trees begin to pollinate, with each tree having about a two week period of pollination. A particular patient may be sensitive to only one tree and thus have his hay fever for such a short time that he thinks he has a cold.[2] The entire tree season starts about April 1 and ends about Memorial Day, although all hay fever seasons are blurred and prolonged in the southern part of the country. Tree pollen is usually very heavy and a person may well have most of his exposure from those trees immediately surrounding his home.

Grasses pollinate from about May 15 until July 4, and cause "rose fever." Grass pollens are somewhat lighter and more buoyant than tree pollens, and are much more ubiquitous. While there are several varieties of grasses in the United States, they are so closely related antigenically that a person sensitive to one is generally sensitive to them all.[3] Thus, while the tree season is really several small seasons intertwined, the grass season will usually result in symptoms for a more prolonged period. Obviously, a grass-sensitive patient will have trouble only when grass is pollinating—he will have to think of another excuse not to mow the lawn after July 4.

Ragweed is the "Big Daddy" of them all in the eastern two-thirds of the country. Pollination is generally from mid-August until the end of September, with the predicted lower counts and longer seasons



in the southern part of the country. Ragweed is a very light pollen which may be windborne for hundreds of miles. An interesting study was made in New York City, in which 90% or more of the ragweed plants were destroyed in three of the five boroughs; pollen counts done during the season were virtually identical in all five.[4]

Ragweed is, of course, the most common cause of hay fever and is associated with an incredible loss of man hours from work each year. Many is the patient who travels to areas where the pollen count is low, just to avoid having symptoms. There is no ragweed anywhere in the world except the United States and portions of Canada and Mexico.

While molds are present through the year, the most important ones predominate from April until November. An old wives' tale has ragweed ending with the first frost, when actually it ends a good month earlier. It is Alternaria—the kingpin of the molds—that meets a sudden demise with the first frost. Alternaria-sensitive patients are in their glory when there is snow on the ground, and might be ideally suited to man the radar stations in Alaska. In September and October, Alternaria counts are at their highest, perhaps associated with the burning of leaves. Other molds such as Hormodendrum and Helminthosporium are associated with the warmer weather, as opposed to Penicillium and Aspergillus which are household molds.

Summer also means the return of our much maligned associates—bugs. Insects cause allergic symptoms by two methods: the bite or sting of the Hymenoptera group, and the inhalation of particles of the bodies of various insects. Wasp stings are the oldest known form of allergy, as they caused the death of one of the pharaohs in ancient Egypt.[5] Bees, wasps and hornets account for many deaths in this country, and those sensitive to them should carry special treatment kits at all times; a few minutes delay in the administration of epinephrine to such a patient, might be the difference between life and death. Inhalation of particles of insects may cause sneezing and wheezing in a susceptible individual.[6] Both of these forms of insect allergy may be benefitted by hyposensitization.

The insect recognizes no professional bounds. He is as apt to bite the physician as the patient. So this season, beware of bugs. And beware, too, of poison ivy. That pleasant stroll through the woods and underbrush with the Boy Scouts might turn into a

(Concluded on following page)

to relieve summer allergies

Triaminic®

Each timed-release tablet contains phenylpropanolamine hydrochloride 50 mg., pheniramine maleate 25 mg. and pyrilamine maleate 25 mg.

It's a comforting thing to know

For product information see following page

(Advertisement)

nightmare for the botanically uninitiated in the causes of rhus dermatitis (poison ivy, poison oak and poison sumac). Although you may have been careful, your dog may not have noted that it wasn't clover he jumped through, but poison ivy. His return to your side may give you the rhus dermatitis that you so carefully avoided. That heavenly campfire may be emitting particles of rhus oil to produce an airborne contact dermatitis of the exposed areas of the body.

Another fascinating, but rather infrequent type of summer allergy is physical allergy. Some people sneeze on exposure to sunlight, while others break out in rashes, usually on the exposed parts of the body. These rashes may well follow the administration of various photosensitizing drugs, e.g. demethylchlortetracycline.[7] Another form of physical allergy and one that may be lethal in the summer, is cold allergy. Yes, I mean cold allergy, not heat allergy. The cool dip on a hot day with its consequent sudden chilling of the body, may be the coup de grace for a cold sensitive patient.[8] It is customary to write "heart attack" on the death certificate, even though the victim may have been an 18-year-old boy who looks like a Greek god.

Lest the reader be depressed by this saga of afflictions associated with the warmer months, perhaps he should remember that it is also a time for swimming, baseball, lying in the sun and taking that long-planned vacation. So let's all join in a chorus of "In the Good Old Summertime," as we sneeze, wheeze and scratch. Be careful of your suntan lotion, however; it may cause you a contact dermatitis.

References 1. Unger, L.: Bronchial asthma. Charles C. Thomas Co. p. 47, 1946. 2. Samter, M.: Immunological diseases. Little, Brown and Co. p. 513, 1965. 3. Wodehouse, R. P.: Antigenic analysis by gel diffusions: 2. Grass pollen. Int. Arch. Allerg. **6**:65, 1955. 4. Cohart, E. M., and Kandle, R. P.: The Effects of a ragweed control program on ragweed pollen counts, J. Allergy **30**:287, 1959. 5. Woddell, L. S.: Egyptian civilization: Its origin and real chronology and Sumerian origin of Egyptian hieroglyphics. London: Luzak & Co. 1930. 6. Parlato, S. J.: The sandfly (Caddis fly) as an exciting cause of allergic coryza and asthma: II. Its relative frequency. J. Allergy **1**:307, 1930. 7. Ozere, R. L.: Demethylchlortetracycline photosensitivity. Canad. M. A. J. **85**:1199, 1961. 8. Horton, B. T., Braun, G. E., and Roth, G. M.: Hypersensitiveness to colds, JAMA **107**:1263, 1936.

How can he be a sport with a runny nose?



For summer allergies, summer colds, or nasal congestion due to almost any cause, you prescribe quick r-e-l-i-e-f with Triaminic. It's ideal for summer allergies:

1. Acts in 15-30 minutes due to decongestant.
2. Follows up with balanced dual antihistamines.
3. Up to 24-hour 'round the clock relief when dosed one tablet at morning, mid-afternoon and evening.

Summer time is sport time and who can be a sport with a runny nose?

provide patient comfort

Triaminic® relieves summer allergies

Each timed-release tablet contains:

Phenylpropanolamine hydrochloride	50 mg.
Pheniramine maleate	25 mg.
Pyrilamine maleate	25 mg.

Side effects: Occasional drowsiness, blurred vision, cardiac palpitation, flushing, dizziness, nervousness or gastrointestinal upsets.

Precautions: The patient should be advised not to drive a car or operate dangerous machinery if drowsiness occurs. Use with caution in patients with hypertension, heart disease, diabetes or thyrotoxicosis.

(Advertisement)

NEWS

Mustn't Munch Mistletoe Says New Booklet

Please don't eat the buttercups—or the iris, or the rhododendron. And don't munch on the mistletoe berries, either.

That's part of the information Wyeth Laboratories, Philadelphia pharmaceutical manufacturer, is passing out to physicians and pharmacists in a booklet called "The Sinister Garden." The booklet contains drawings of 56 different plants found in flower or vegetable gardens, in fields or as ornamental plants in the home. The toxic part of each plant is listed along with the symptoms that may occur when those toxic parts are ingested.

Robert S. Warner, M.D., director of professional marketing services for Wyeth, reports "The Sinister Garden" was distributed to practicing physicians by the company's field representatives during National Poison Prevention Week, March 19-25.

"We want to place this new booklet with everyone who may be called on to identify the effects of plant poisonings in young children," Dr. Warner said, "Poison control centers, accident wards in hospitals, pediatricians and general practitioners should have received the booklet as part of Wyeth's support for the Poison Prevention efforts during the week of March 19."

"The Sinister Garden" points out that parts of edible plants may also have toxic effects. The potato itself is edible, but the sprouts, leaves, and stems of the potato plant "may cause mental confusion, cardiac depression, and clammy skin." Rhubarb stalks can be cooked for the dinner table, but rhubarb leaves may cause vomiting and severe abdominal pains.

Other plants and the parts which are cited as poisonous in "The Sinister Garden" are:

Cherry tree—twigs, leaves and bark

Elderberry — shoots, leaves, bark and roots

Oak trees — acorns, young shoots and leaves

Privet hedge—entire plant, especially leaves and berries

Mayapple—green fruit, roots and umbrella-shaped foliage

Wisteria—elongated pods or their seeds

Mountain laurel — entire plant

Iris or blue flag—leaves, rootstocks and other fleshy portions

Four FMA Members Honored by AMA

Four FMA members have recently been elected, appointed, reelected or reappointed to positions on an AMA council or committee. The physicians and their positions are as follows:

Dr. H. Phillip Hampton, Tampa, reappointed a member of the AMA Council on Legislative Activities.

Dr. Francis T. Holland, Tallahassee, reelected vice-chairman of the AMA Council on Rural Health.

Dr. James A. Long Jr., Palatka, appointed a member of the AMA Committee on Medicine and Religion.

Dr. Mason Romaine III, Jacksonville, reappointed a member of the AMA Council on Voluntary Health Agencies.

Southeastern States Cancer Seminar

Physicians engaged in general practice, as well as those whose practice is in specialized fields, will find this year's program planned for the Southeastern States Cancer Seminar of particular interest since the theme will be "The Value of Early Diagnosis of Cancer," according to a recent SSCS news release.

For reservations and accommodations write or phone Southeastern States Cancer Seminar (Information Office) 2 S. E. 13th Street, Miami 33131.

Medical Examiners Organize Nationally

Formation of the National Association of Medical Examiners to advance the administrative, career and other practical interests of the country's medical examiners has been announced by Milton Helpern, M.D., chief medical examiner of New York City and interim president of the new organization.

Dr. Helpern said the Association will seek to deal with such problems as the need for greater understanding and support for the medical examiner system from the general public, government officials at all levels and the medical and legal professions, and the need for a greater exchange of information and opinion among medical examiners.

If the new organization receives adequate support, it will publish a newsletter; establish and operate a central reference library and a clearinghouse of information on the work of the medical examiner; assist, upon request, local and state governments seeking information and advice on the best way to establish and maintain a medical examiner's office, and carry out projects designed to help medical examiners in their activities.

The Association will consist of Regular and Associate members. Regular members will be physicians who carry out the duties of a medical examiner, including the performance of official medicolegal autopsies, the investigation of sudden, violent and suspicious deaths and the certification of deaths. Associate members will be physicians who conduct official investigations and certify deaths but are not qualified to perform official medicolegal autopsies.

Dr. Helpern said that the Association does not intend to compete or conflict with any other organization, including the American Academy of Forensic Sciences and the National Association of Coroners. He added that, while it will be composed of members with scientific qualifications and attainments, it will not concern itself with scientific matters per se.

The new association will be governed by an interim steering committee of leading medical examiners until the organization's first annual meeting, which may be held in conjunction with the annual meeting of the American Academy of Forensic Sciences in 1968.

The Association has received a certificate of incorporation from the State of New York and is inviting physicians who are qualified to join the organization. Physicians who are interested and believe they are qualified to belong are invited to write to: National Association of Medical Examiners, 520 First Avenue, New York, N.Y. 10016.

Coral Snake Antivenin Supplied Soon by Wyeth

An antidote for the poison from bites by coral snakes will be supplied soon as a public service by Wyeth Laboratories, Philadelphia pharmaceutical manufacturer.

As part of the observance of National Poison Prevention Week, H. F. AuBuchon, vice president and director of marketing for Wyeth, announced that the Company will supply in May *Antivenin: Micrurus Fulvius,* the first antivenin specific for the treatment of bites by the Eastern Coral Snake *Micrurus Fulvius,* the major species of this genus.

The new antivenin will be distributed by Wyeth to state health departments in areas where the Eastern Coral Snake lives. A supply of this Antivenin will also be available through Wyeth biological facility at Marietta, Pa. Distribution will be on a no charge basis.

Wyeth is the sole producer of the Antivenin for another snake poison—*Antivenin: Crotalidae Polyvalent,* antiserum for pit vipers such as rattlesnakes.

Antivenin: Micrurus Fulvius will be the first coral snake antivenin to be manufactured in the United States, and is released with the approval of the Division of Biological Standards of the United States Public Health Service.



She simply sits while the party goes on around her, already used to being the girl who is left out. She tries to lose weight—but her emotions won't let her. She becomes irritable and depressed when she doesn't eat, and anxious when she considers her future. So each time she gives up.

"What can I do?" she asks when she visits your office. "How can I ever stay on a diet and lose weight?"

A PARTICULAR COMBINATION OF ACTIONS

Ambar #2 Extentabs®

methamphetamine hydrochloride 15 mg., phenobarbital 64.8 mg. (1 gr.) (Warning: may be habit forming).

FOR THE NEEDS OF THE DIETING WOMAN

A. H. Robins Co., Inc.
Richmond, Va. 23220

A·H·ROBINS

Ambar is formulated to specifically meet both the physical and emotional needs of the woman who is trying to lose weight. *Methamphetamine hydrochloride* has a powerful suppressant effect on the appetite and also provides a gentle psychic lift to improve mood and encourage activity. The *phenobarbital* component, through its classic calming action, helps control irritability and anxiety, and helps counteract excessive CNS stimulation.

Also available: Ambar #1 Extentabs®—methamphetamine hydrochloride 10 mg., phenobarbital 64.8 mg. (1 gr.) (Warning: may be habit forming).

BRIEF SUMMARY / *Indications:* Ambar suppresses appetite and helps offset emotional reactions to dieting. *Side Effects:* Nervousness or excitement occasionally noted, but usually infrequent at recommended dosages. Slight drowsiness has been reported rarely. *Precautions:* Administer with caution in the presence of cardiovascular disease or hypertension. *Contraindications:* Hypersensitivity to barbiturates or sympathomimetics; patients with advanced renal or hepatic disease. See package insert for further details.



now Novestrol™ (ethinyl estradiol U.S.P.)

estrogen replacement therapy

for the menopausal syndrome and female hypogonadism. Novestrol, a pure synthetic estrogen derivative, is related to estradiol which is the primary hormone of the ovarian follicle. It is effective orally and has all the actions of naturally occurring estrogen.

Ethinyl estradiol is the most active estrogen known. In addition to its high potency, Novestrol offers patients the advantages of minimal side effects, low cost, and convenience. Usually only a single daily dose is necessary.

Description: Each green, sugar-coated tablet contains 0.02 mg. of ethinyl estradiol U.S.P., a pure synthetic estrogen derivative, the most active estrogen known.
Indications: Menopausal syndrome and female hypogonadism.
Contraindications: Patients with tumors which estrogen might stimulate.
Precautions: Examine patients for mammary or reproductive system neoplasm. Give with great care, if at all, to patients who have precancerous lesions or family history of cancer.

Prolonged administration or high doses may produce anterior pituitary suppression. Endometrial bleeding can usually be avoided by cyclic administration at lowest effective dose and addition of progesterone during last half of cycle. Endometrial hyperplasia may develop in spite of cyclic therapy.
Side Effects: Occasional gastrointestinal disturbances, headache and vertigo. These usually disappear following proper dosage reduction.
Dosage and Administration: Determine minimum effective dose and maintain only as long as necessary.

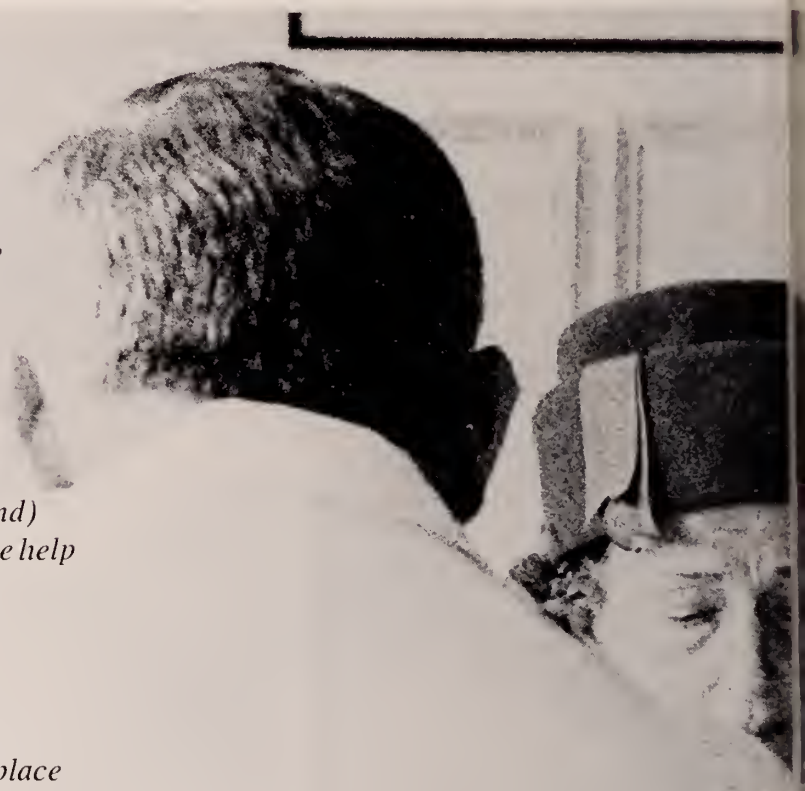
Menopausal Syndrome: One or two tablets (0.02 or 0.04 mg.) daily. Omit therapy one week each month. Repeat cyclic therapy until satisfactory response is obtained. Advise patient that vaginal bleeding may occur.

Female Hypogonadism: Two tablets (0.04 mg.) one to three times daily for two weeks followed by progesterone for two weeks. Continue cyclic therapy for 3-6 months; then withdraw therapy to determine if normal cycle will be instituted. Additional cyclic therapy may be required in some patients.

WILLIAM H. RORER, INC. Fort Washington, Pa.

The Mediatric Age:

There is a growing senescent body of people on their way to malignant inactivity, who sorely need your interest and direction to help them back to a more activ and useful life. There are medicines too, designed to help One such has proved useful in clinical practice.



"A steroid-nutritional compound (Mediatric) was used in 100 patients to relieve some of the symptoms caused by degenerative changes of aging . . . This therapy resulted in improvement of 75 per cent of the patients . . ."

McNeill, A. J.: Clin. Med. *8*:518 (Mar.) 1961.

"Mediatric (steroid-nutritional compound) capsules, one a day, seem to give definite help to debilitated patients."

Arnold, E. T., Jr.: Geriatrics *12*:612 (Oct.) 1957.

"Nutritional and hormone bolstering of function in the aged may have a useful place in geriatrics."

Morgan, A. F.: Gerontologist *2*:77 (June) 1962.

"In diets which for any reason are restricted in calories, enough of these substances (B vitamins) may not be supplied . . . The use of B and C vitamin supplements may then be justified and indeed may be necessary."

Morgan, A. F.: Gerontologist *2*:77 (June) 1962.

"Intensive nutritional therapy is necessary, especially in elderly people, to correct dietary deficiencies created by large losses of protein, vitamins and other nutrients."

Riccitelli, M. L.: J. Am. Geriatrics Soc. *12*:489 (May) 1964.

Mediatric®

Designed for the "metabolically spent"

Nutritional reinforcement for those who can't – or won't – eat properly...balanced amounts of estrogen and androgen to counteract declining gonadal hormone secretion and its sequelae of premature degenerative changes...mild antidepressant for a gentle "mood" uplift...

The estrogen component in MEDIATRIC is PREMARIN® (conjugated estrogens—equine), the natural estrogen most widely prescribed for its superior physiologic and metabolic benefits.

MEDIATRIC also provides *nutritional reinforcement—blood-building factors and vitamin supplementation.* It contributes a *gentle "mood" uplift* through methamphetamine HCl.

Three different dosage forms—Liquid, Tablets, and Capsules—offer convenience and variety.

MEDIATRIC Liquid

Each 15 cc. (3 teaspoonfuls) contains:

Conjugated estrogens—equine (Premarin®)	0.25 mg.
Methyltestosterone	2.5 mg.
Thiamine HCl	5.0 mg.
Cyanocobalamin	1.5 mcg.
Methamphetamine HCl	1.0 mg.

Contains 15% alcohol

MEDIATRIC Tablets and Capsules

Each MEDIATRIC Tablet or Capsule contains:

Conjugated estrogens—equine (Premarin®)	0.25 mg.
Methyltestosterone	2.5 mg.
Ascorbic acid	100.0 mg.
Cyanocobalamin	2.5 mcg.
Intrinsic factor concentrate	8.0 mg.
Thiamine mononitrate	10.0 mg.
Riboflavin	5.0 mg.
Niacinamide	50.0 mg.
Pyridoxine HCl	3.0 mg.
Calc. pantothenate	20.0 mg.
Ferrous sulfate exsic.	30.0 mg.
Methamphetamine HCl	1.0 mg.

Orally active, water-soluble conjugated estrogens derived from pregnant mares' urine and standardized in terms of the weight of active, water-soluble estrogen content.

MEDIATRIC helps keep the older patient alert and active; helps relieve general malaise, easy fatigability, vague pains in the bones and joints, loss of appetite, and lack of interest usually associated with declining gonadal hormone secretion.

CONTRAINDICATION: Carcinoma of the prostate, due to methyltestosterone component.

WARNING: Some patients with pernicious anemia may not respond to treatment with the Tablets or Capsules, nor is cessation of response predictable. Periodic examinations and laboratory studies of pernicious anemia patients are essential and recommended.

SIDE EFFECTS: In addition to withdrawal bleeding, breast tenderness or hirsutism may occur.

SUGGESTED DOSAGES: *Male and female:* 3 teaspoonfuls of Liquid, 1 Tablet, or 1 Capsule, daily or as required.

In the female: To avoid continuous stimulation of breast and uterus, cyclic therapy is recommended (3 week regimen with 1 week rest period—Withdrawal bleeding may occur during this 1 week rest period).

In the male: A careful check should be made on the status of the prostate gland when therapy is given for protracted intervals.

SUPPLIED: No. 910 – MEDIATRIC Liquid, in bottles of 16 fluidounces and 1 gallon. No. 752 – MEDIATRIC Tablets, in bottles of 100 and 1,000. No. 252 – MEDIATRIC Capsules, in bottles of 30, 100, and 1,000.



Mediatric®

steroid-nutritional compound

AYERST LABORATORIES, NEW YORK, N.Y. 10017 • Montreal, Canada

6636

Deaths

Fleming, Samuel Ward, West Palm Beach; born in Mine La Motte, Mo., Nov. 21, 1898; Washington University Medical School, 1922; interned at St. Louis City Hospital and served residencies at Barnes Hospital in that city and Jackson Memorial Hospital, Miami; came to West Palm Beach in 1926, where he was a practicing physician and surgeon for four decades; was secretary of the Palm Beach County Medical Society in 1928 and president in 1933; was active on the staff of Good Samaritan Hospital, West Palm Beach and on the consulting staff of St. Mary's Hospital, West Palm Beach and Bethesda Memorial Hospital, Boynton Beach; had several of his articles published in the Journal of the Florida Medical Association; was a Fellow of the American College of Surgeons and held membership in the Southern Medical Association, Southeastern Surgical Congress and American Medical Association; died Nov. 21, 1966, his 68th birthday.

Glicksman, Herbert Yuni, West Palm Beach; born in New York City, Aug. 15, 1914; Syracuse University College of Medicine, 1938; interned at St. Joseph's Hospital, Syracuse and served a residency at the Meninger Foundation School of Psychiatry; practiced psychiatry and psychoanalysis in Chicago, Ill. from 1950 to 1962; came to West Palm Beach and was licensed in Florida Jan. 16, 1965; held membership in the American Psychiatric Association, American Psychoanalytic Association, Florida Psychiatric Society and Chicago Psychoanalytic Society; died Feb. 1, 1967, aged 53.

Holly, John Calvert Sr., Milton; born in Fosters, Ala., Nov. 11, 1889; University of Alabama School of Medicine, 1912; came to Florida where he engaged in the general practice of medicine in Santa Rosa County for more than 50 years, most of that time in Milton, where he practiced for 48 years; was chief of staff of the Santa Rosa County Hospital; was president of the Walton-Okaloosa-Santa Rosa County Medical Society in 1959; held membership in the American Medical Association and Southern Medical Association; died Jan. 2, 1967, aged 78.

Lester, John Gamble, Lakeland; born in Denver, Ky., Feb. 27, 1894; University of Louisville College of Medicine, 1918; interned at Louisville City Hospital and served a residency at the Minnesota State Tuberculosis Institution, Walker, Minn.; came to Bartow in 1919, where he engaged in the general practice of medicine and the practice of urology until 1924, when he moved to Lakeland and practiced there for over four decades; was secretary of the Polk County Medical Association in 1920; was a staff member of Lakeland General Hospital; was a life member of the Florida Medical Association; held membership in the American Medical Association and Southern Medical Association; died Aug. 9, 1966, aged 72.

Read, John Sturdivant, Savannah, Ga.; born in Covington, Ky., 1876; Long Island College of Medicine, N. Y., 1902; interned at the Long Island College Hospital, Brooklyn, N. Y.; was licensed in Florida in 1952, and practiced urology in Sarasota County; retired in 1957 and moved to Savannah, Ga.; held membership in the American Medical Association; died Jan. 26, 1967, aged 80.

Woodville, John Breckinridge Jr., St. Petersburg; born in Frankford, W. Va., April 23, 1900; Medical College of Virginia, Richmond, 1930; interned at Charleston General Hospital, Charleston, W. Va.; engaged in the general practice of medicine in Brooklyn, W. Va., from 1931 to 1934; from 1935 to 1942 practiced at the U.S. Veterans Administration Hospital, Batavia, N. Y.; served in the U.S. Army Medical Corps from 1942 to 1946, where he attained the rank of captain; moved to St. Petersburg in 1946 and began there the private general practice of medicine; was a staff member of Mound Park Hospital, and an honorary staff member of St. Anthony's Hospital, St. Petersburg; held membership in the American Academy of General Practice; died Nov. 28, 1966, aged 66.



"Livingston...vertigo is my doom!"
Cried Stanley in his doctor's room.





Said the doc, "For your ills
I've got just the pills."



Said Stan,
"Antivert, I presume."

Antivert tablets/syrup ® stops vertigo
(meclizine HCl, niacin)

Tablets: (meclizine HCl 12.5 mg. and niacin 50 mg.) Syrup: (each 5 cc. teaspoonful contains meclizine HCl 6.25 mg. and niacin 25 mg.)

Most widely prescribed anti-vertigo agent[1] Complete to moderate relief of symptoms in 9 out of 10 patients[2]

Antivert, the leading anti-vertigo product,[1] combines meclizine HCl, an outstanding drug for treatment of vestibular dysfunction, with niacin, a drug of choice for prompt vasodilation. Prescribe Antivert for your patients with vertigo, Meniere's syndrome and allied disorders.

Precautions and contraindications: Frequent, short-lived reactions include: cutaneous flushing, sensations of warmth, tingling and itching, burning of skin, increased gastrointestinal motility, and sebaceous gland activity. In explaining these reactions to the patient, it is suggested that they be regarded as a desirable physiological sign that the niacin is carrying out its intended function of vasodilation. Because of this vasodilation, severe hypotension and hemorrhage are obvious contraindications to Antivert therapy. Although the incidence of drowsiness and other atropine-like side effects such as dry mouth and blurring of vision is low, the physician should alert the patient to the need for due precautions when engaging in activities where alertness is mandatory. **Use in women of childbearing age:** A review of available animal data reveals that meclizine exerts a teratogenic response in the rat. In one study a dose of 50 mg./kg./day (50 times the maximum recommended human dose) produced cleft palate in 2 of 87 fetuses when administered to the rat at critical times during the first 15 days of gestation. At doses of 125 mg./kg./day, meclizine will produce 100% incidence of cleft palate in the rat. At doses of 25 mg./kg./day, decreased calcification of the vertebrae and relative shortening of the limbs were also produced in the rat, but experts disagree as to whether this is a teratogenic response. While available clinical data are inconclusive, scientific experts are of the opinion that this drug may possess a potential for adverse effects on the human fetus. Consequently, consideration should be given to initial use of a nonphenothiazine agent that is not suspected of having a teratogenic potential. In any case, the dosage and duration of treatment should be kept to a minimum. **Dosage:** One tablet or one to two teaspoonfuls (5-10 cc.) t.i.d. just before meals. Specific requirements for individual patients should be determined by the physician. **Supplied:** Tablets in bottles of 100 and 500. Syrup in pint bottles. RX only.

References: 1. Based on 1966 data from independent physicians' market survey organization. 2. Scal, J. C.: Eye Ear Nose & Throat Month. **38**:738 (Sept.) 1959.

Neobon®
geriatric ♀ supplement

helps keep them 'on the go'

Each capsule contains:

(1) Vitamins and Minerals	
Vitamin A (acetate)	2000 U.S.P. units
Vitamin D (ergocalciferol, U.S.P.)	200 U.S.P. units
Vitamin B_1 (thiamine mononitrate, U.S.P.)	0.5 mg.
Vitamin B_2 (riboflavin, U.S.P.)	0.5 mg.
Vitamin B_6 (pyridoxine HCl, U.S.P.)	0.5 mg.
Niacinamide, U.S.P.	50 mg.
Calcium pantothenate, U.S.P.	5 mg.
Vitamin E (di-alpha tocopheryl acetate)	5 I.U.
Rutin	5 mg.
Cobalt (from cobalt sulfate)	0.033 mg.
Molybdenum (from sodium molybdate)	0.066 mg.
Copper (from copper sulfate)	0.33 mg.
Manganese (from manganese sulfate)	0.33 mg.
Magnesium (from magnesium sulfate)	2 mg.
Iodine (from potassium iodide)	0.05 mg.
Potassium (from potassium sulfate)	1.66 mg.
Zinc (from zinc sulfate)	0.4 mg.
(2) Hematopoietic Factors	
Iron (from ferrous sulfate)	3.40 mg.
Vitamin B_{12} (cobalamin concentrate, N.F., as Stablets®)	1 mcg.
Vitamin C (ascorbic acid, U.S.P.)	50 mg.
(3) Digestive Enzyme	
Pancreatic substance*	50 mg.
(4) Gonadal Hormones	
Methyltestosterone, N.F.	1.0 mg.
Ethinyl Estradiol, U.S.P.	0.006 mg.
(5) Amino Acids	
L-lysine (monohydrochloride)	50 mg.
L-Glutamic acid	30 mg.

*Enzymatically active defatted material obtained from 250 mg. of whole fresh pancreas.

For older adults who require it, daily supplementation with Neobon can help overcome decreases in endogenous gonadal hormone production, as well as deficiencies of iron, vitamins and other nutritional factors. In a single convenient capsule, Neobon provides vitamins, minerals, gonadal hormones, hematopoietic factors, digestive enzymes, and amino acids—all selected for adjunctive therapeutic value in the geriatric syndrome. For example, one of the gonadal hormones in Neobon is ethinyl estradiol. It is more slowly metabolized in the body than natural estrogens or their esters.

Precautions: Contraindicated in patients in whom estrogen or androgen therapy should not be used, as in carcinoma of the breast or prostate.

Dosage: One capsule, t.i.d. with meals, or as directed by physician.

Supplied: Bottles of 60 capsules. Rx only.

J.B. ROERIG DIVISION
CHAS. PFIZER & CO., INC.
NEW YORK, N.Y. 10017

Against these three major pathogens…



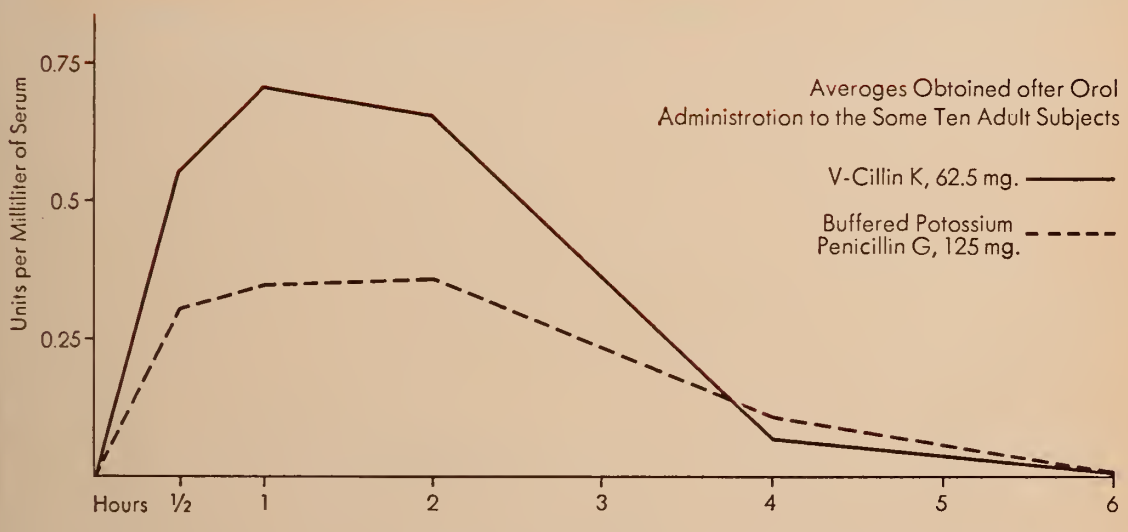
V-Cillin K® provides dependable oral antibacterial activity

because it combines a high degree of in-vitro activity...

Antibiotic	Stoph. Aureus (Penicillin-Sensitive) MIC (mcg./ml.) Median	Range	Streptococcus, Group A MIC (mcg./ml.) Median	Range	Diplococcus Pneumonioe MIC (mcg./ml.) Median	Range
Penicillin V	0.02	0.02-0.04	0.02	0.003-0.4	0.01	0.005-0.2
Penicillin G	0.02	0.005-1.6	0.005	0.002-0.2	0.02	0.01-0.1
Methicillin	1.6	0.4-6.3	0.2	0.1-0.4	0.2	0.1-1.6
Oxocillin	0.4	0.1-3.1	0.04	0.02-0.4	0.1	0.04-0.8
Cloxocillin	0.2	0.2-0.8	0.1	0.1-0.8	—	—
Nofcillin	0.4	0.2-0.8	0.04	0.02-0.1	0.02	0.02-0.2
Ampicillin	0.2	0.1-0.8	0.02	0.01-0.04	0.02	0.01-0.04

Adapted from Klein, J. O., and Finland, M.: New England J. Med. 269:1019, 1963.

with high blood levels, even in the presence of food



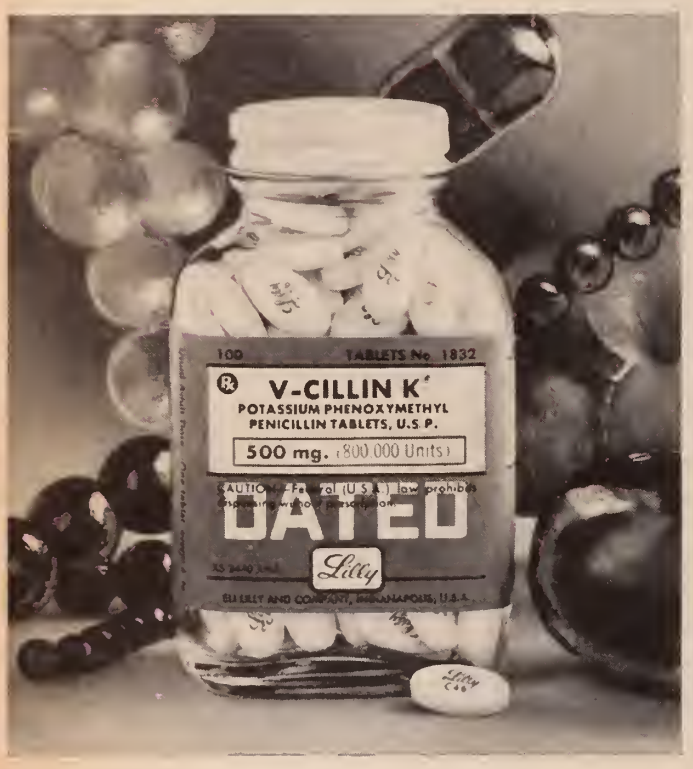
Adapted from Griffith, R. S., and Black, H. R.: Current Ther. Res., 6 253, 1964.

V-Cillin K® Lilly 700636

Potassium Phenoxymethyl Penicillin

(See next page for prescribing information

New 500 mg. tablets...a more convenient way to give high doses



Description: V-Cillin K is the patassium salt of V-Cillin® (phenoxymethyl penicillin, Lilly). This chemicolly improved form combines acid stobility with immediate solubility and rapid obsorption. Higher serum levels are obtained more ropidly with this penicillin than with equal aral doses af penicillin G. The higher serum levels and acid stability of V-Cillin K make it a mare dependoble penicillin for oral use.

V-Cillin K, Pediatric, is an orol solution of clinically proved V-Cillin K in teaspoon dosage form. When mixed as directed, each 5 cc. (approximately one teaspaonful) will contain 125 mg. (200,000 units) phenoxymethyl penicillin as the potassium salt.

Indications: V-Cillin K has been shown to be effective in the treatment of streptocaccus, pneumococcus, and gonococcus infections as well as infections caused by sensitive strains of stophylococci. It may be used for the praphylaxis af streptocaccus infections in patients with a history af rheumatic fever and for the prevention of bacterial endocarditis after tonsillectomy and tooth extraction in those patients with a history af rheumatic fever ar congenital heart diseose.

Contraindication: V-Cillin K should not be administered to a patient with a history of penicillin hypersensitivity.

Warnings: In rare instances, the use of penicillin may cause acute anaphylaxis which may prove fatal unless promptly controlled. This type of reoction appears more frequently in patients with a history of sensitivity reactions ta penicillin ond in those with bronchial asthma or ather allergies. Resuscitative drugs should be readily available far emergency odministration. These include epinephrine and pressor drugs (as well as oxygen far inhalation) for relief of immediate allergic manifestations and antihistamines and carticosteraids far delaye effects.

Precautions: V-Cillin K should be used cautiously, if at all, in a potie with a strongly positive history of ollergy.

In prolonged therapy with penicillin, and particularly with hig parenteral dosage schedules, frequent evaluatian af the renal or hematopoietic systems is recommended.

In suspected staphylococcus infections, proper laboratary studi (including sensitivity tests) should be performed.

The use of penicillin may be ossociated with the overgrowth pencillin-insensitive organisms. In such cases, its odministration shou be discantinued, and appropriate measures should be taken.

Adverse Reactions: Although serious ollergic reactions are much le common with administration of oral penicillin thon with intramuscul forms, manifestotions of penicillin allergy may occur.

Penicillin is a substance of low toxicity, but it does possess a signil cant index of sensitizotion. The following hypersensitivity reactior associated with the use of penicillin have been reported: skin rashe ranging from maculopapular eruptions to exfoliotive dermotitis; url caria; and reoctions resembling serum sickness, including chills, feve edema, arthralgia, and prostrotion. Severe and often fatal anaphylax has occurred (see Warnings). Hemolytic anemia, leukopenia, thror bocytopenia, and nephropathy are rarely observed side-effects on are usually associated with high parenteral dosage.

Administration and Dosage: For Tablets V-Cillin K and for V-Cillin K Pediotric, the usual dosage ronges from 125 mg. (200,000 units) thre times a day to 500 mg. (800,000 units) every four hours. For infant the daily dosage may be 50 mg. per Kg. af body weight divided int three doses.

Beta-hemolytic streptococcus infections without associated ba teremia may be treated with 200,000 to 400,0000 units three times day. Therapy should be continued for a minimum of ten days to prever development of rheumatic fever ond/or other serious complication Dosage for routine streptococcus prophylaxis in patients with a histor af rheumatic fever or congenitol heart disease may be 200,000 unit once or twice daily. When such patients undergo tonsillectomy, toot extraction, or other minor surgery, the prophylactic dose should b 500,000 units every six hours given two days prior to surgery and fo two days postoperatively. If oral medication is not feosible on the da of surgery, parenteral therapy should be considered. Mild to mode ately severe pneumococcus pneumonia has been treated effectivel with 250 mg. every six hours.

In staphylococcus infections, 400,000 units or more should be give every six to eight hours in canjunction with indicated surgical proce dures.

For ganorrhea in males, 500 mg. (800,000 units) every four hour for three doses may be employed; in females, 500 mg. every four hour for six doses are recommended. Patients with o suspected lesion o syphilis should have a dork-field exomination before receiving penicilli and manthly serologic tests for a minimum of three months.

How Supplied: Tablets V-Cillin K, U.S.P., 125 mg. (200,000 units), i bottles of 50 and 100; and 250 mg. (400,0000 units) and 500 mg (800,000 units), in bottles of 24 and 100.

V-Cillin K, Pediotric, for Orol Solution, 125 mg. (200,0000 units) pe 5 cc. of solution, in 40, 80, and 150-cc.-size pockages. [011867]

Additionol informotion ovailable to physicians upon request. Eli Lilly ond Compony, Indianapolis, Indiono 46206.

Lilly

70-



Blessed event?

Not entirely, when nausea and vomiting occur in early pregnancy. Emetrol offers prompt and safe relief. Local rather than systemic action provides emesis control on contact with the hyperactive G.I. tract.* In a study of 123 pregnant women, the drug produced measurable improvement in 79% of patients in controlling vomiting.[1]

*As shown by *in vitro* studies.
1. Crunden, A. B., Jr., and Davis, W. A.: Am. J. Obst. & Gynec. *65*:311 (Feb.) 1953.



Emetrol®
phosphorated carbohydrate solution
emesis control

ROER
WILLIAM H. RORER, INC.
Fort Washington, Pa.

Hill Crest
HOSPITAL
(Formerly Hill Crest Sanitarium)

7000 5TH AVENUE SOUTH
Box 2896, Woodlawn Station
Birmingham, Alabama 35212
Phone: 205 - 595-1151

A patient centered independent hospital for intensive treatment of nervous disorders . . .

Hill Crest Hospital was established in 1925 as Hill Crest Sanitarium to provide private psychiatric treatment of nervous or mental disorders. Individual patient care has been the theme during its 41 years of service.

Both male and female patients are accepted and departmentalized care is provided according to sex and the degree of illness.

In addition to the psychiatric staff, consultants are available in all medical specialities.

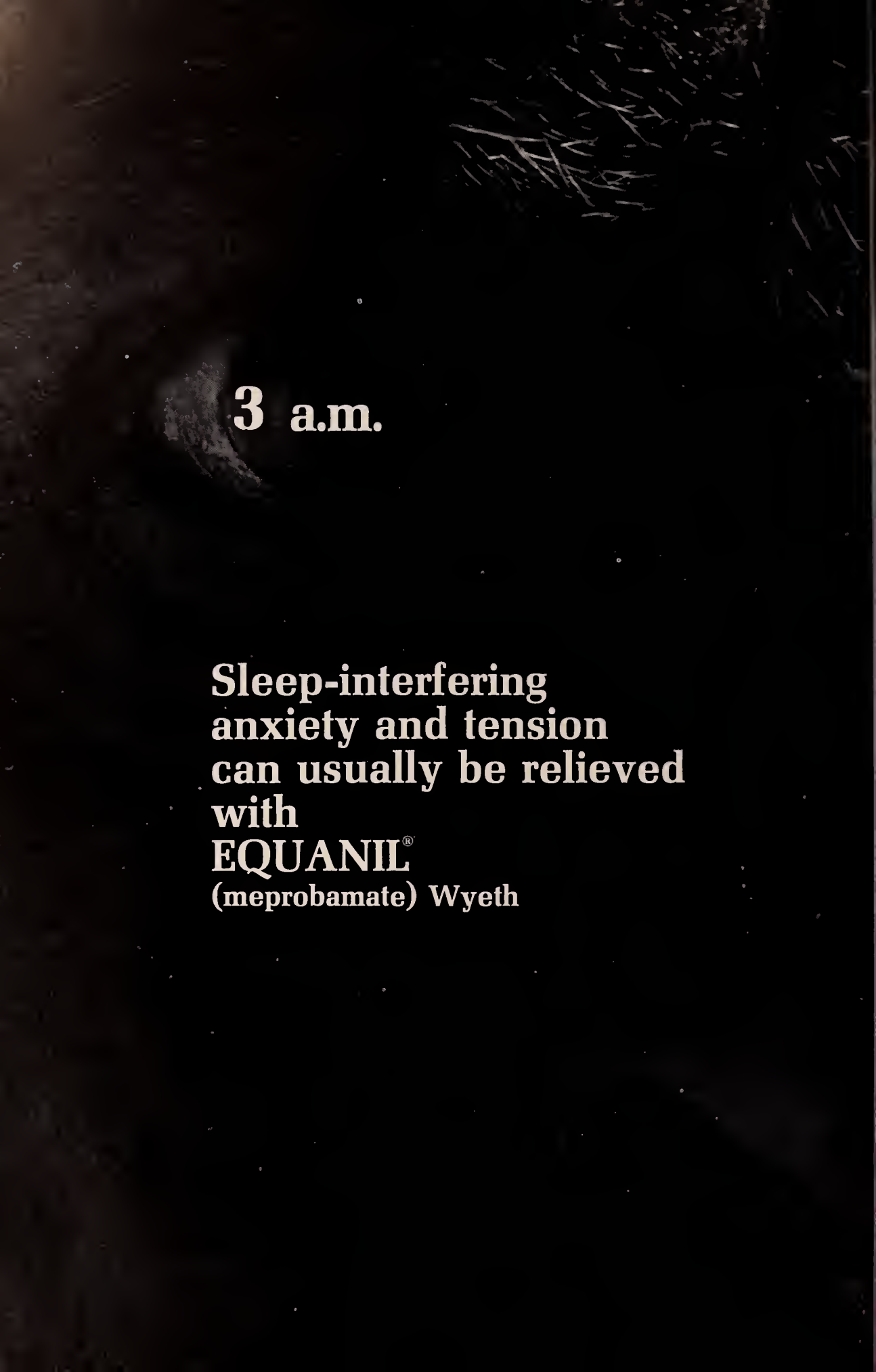


MEDICAL DIRECTOR:
James A. Becton, M.D., F.A.P.A.

CLINICAL DIRECTORS:
James K. Ward, M.D., F.A.P.A.
Hardin M. Ritchey, M.D., F.A.P.A.

HILL CREST is a member of:
AMERICAN HOSPITAL ASSOCIATION . . .
. . . NATIONAL ASSOCIATION OF PRIVATE PSYCHIATRIC HOSPITALS . . .
ALABAMA HOSPITAL ASSOCIATION . . .
BIRMINGHAM REGIONAL HOSPITAL COUNCIL.
Hill Crest is fully accredited by the Joint Commission on Accreditation of Hospitals.

Hill Crest
HOSPITAL
BIRMINGHAM, ALABAMA


3 a.m.
Sleep-interfering
anxiety and tension
can usually be relieved
with
EQUANIL®
(meprobamate) Wyeth



Cautions: Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use may result in dependence or habituation in susceptible persons—as ex-addicts, alcoholics, severe psychoneurotics. After prolonged high dosage, drug should be withdrawn gradually to avoid possibly severe withdrawal reactions including epileptiform seizures. Side effects include drowsiness and, rarely, allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute non-thrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever have been reported. Meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. Warn patients of possible reduced alcohol tolerance. Should drowsiness, ataxia, or visual disturbances occur, dose should be reduced. If symptoms persist, patients should not operate vehicles or dangerous machinery. A few cases of leukopenia, usually transient, have been reported following prolonged dosage. Other blood dyscrasias—aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis and hemolytic anemia—have occurred rarely, almost always in the presence of known toxic agents. One fatal case of bullous dermatitis following intermittent use of meprobamate with prednisolone has been reported. Prescribe very cautiously for patients with suicidal tendencies. Suicidal attempts should be treated with immediate gastric lavage and appropriate supportive therapy.

Contraindications: History of sensitivity to meprobamate.

Composition: Tablets, 200 mg. and 400 mg. meprobamate. Coated Tablets, WYSEALS® EQUANIL (meprobamate) 400 mg. Continuous-Release Capsules, EQUANIL L-A (meprobamate) 400 mg.

Wyeth Laboratories
Philadelphia, Pa.

Wyeth®
SERVICE TO MEDICINE



P. L. DODGE MEMORIAL HOSPITAL

M. G. Isaacson, M.D.
Medical Director
1861 N.W. South River Drive
Miami, Florida
Phone 379-1448

A nonprofit-voluntary hospital for the treatment of nervous and mental disorders and the problems of drug addiction and alcoholic habituation. Modern diagnostic and treatment procedures including—Psychotherapy, Insulin, & Electroshock, when indicated. Adequate facilities for recreation and out-door activities. Admissions are made without regard to race, color or national origin.

Information on request
Member NAPPH, American Psychiatric Assn., & American Hospital Assn.

Convention Press

2111 North Liberty St.
Jacksonville, Florida
32206

QUALITY BOOK PRINTING
PUBLICATIONS BROCHURES

Whatever your first requisites may be, we always endeavor to maintain a standard of quality in keeping with our reputation for fine work —and at the same time provide the service desired. Let Convention Press help solve your printing problems by intelligently assisting on all details.

Anderson Surgical Supply Co.

Established 1916

Distributors of Known Brands of Proven Quality

TELEPHONE 229-8504
Morgan at Platt, P. O. Box 1228
TAMPA, FLORIDA 33601

TELEPHONE 896-3107
556 9th St., South
ST. PETERSBURG, FLORIDA

TELEPHONE 376-8253
236 S.W. 4th Ave.
GAINESVILLE, FLORIDA

TELEPHONE CHerry 1-9589
1818 N. Orange Ave.
ORLANDO, FLORIDA

Night Leg Cramps...Frequent Bedfellow
In Diabetes,[1] Arthritis,[2] and Peripheral Vascular Disorders[2]



now...specific therapy for night leg cramps

QUINAMM™

Consistently effective, QUINAMM provided complete relief in 94% of 200 patients studied, many of whom were severe cases refractory to other medication.[3] Your prescription for one tablet at bedtime often controls painful night cramps with the initial dose . . . helps restore restful sleep.

QUINAMM Prescribing Informotion: Composition: Each white, beveled, compressed tablet contains: Quinine Sulfate 4 grains (250 mg.) and Aminophylline 3 grains (200 mg.). **Precoutions:** Aminophylline may produce intestinal cramps in some instances, and quinine may produce symptams of cinchanism, such as tinnitus, dizziness, and gastraintestinal disturbance. Discantinue use if ringing in the ears, deafness, skin rash, or visual disturbances occur. **Controindicotion:** QUINAMM is contraindicated in pregnancy because of its quinine content. **Dosoge:** One tablet upon retiring. Where necessary, dasage may be increased to one tablet following the evening meal and one tablet upon retiring. **Supplied:** Bottles of 100 and 500 tablets. **Coution:** Federal law prohibits dispensing without prescriptian.

References: 1. Shuman, C.: Am. J. Med. Sci., 225:54, 1953. 2. Perchuk, E., et al.: Angialagy, 12:102, 1961. 3. Rawls, W., et al.: Med. Times, 87:818, 1959.

WALKER *Laboratories* Division of Richardson-Merrell Inc., Mount Vernon, New York 10551

A COMPLETE BUSINESS SERVICE

FOR THE MEDICAL
AND DENTAL
PROFESSIONS

Professional Management

PM FLORIDA

233 Fourth Avenue, N.E.
St. Petersburg, Florida
Phone 898-5074

1855 Hillview Street
Sarasota, Florida
Sarasota Phone 958-4493
4771 Bilmark
Ft. Myers, Florida
Ft. Myers Phone 936-3162

PROFESSIONAL MANAGEMENT FOR PHYSICIANS AND DENTISTS · since 1932 · PM ©

417 Executive Building
1175 N.E. 125th St.
Miami, Florida 33125
Dade Phone 751-2101
Broward Phone 523-0286

Affiliates of Black & Skaggs Associates
Battle Creek, Michigan

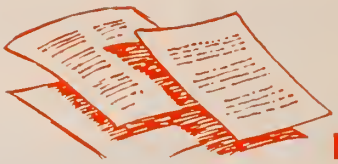
YOUR Patronage Has Made Our Growth Possible

Medical Supply Company of Jacksonville



Home Office
JACKSONVILLE
4539 Beach Blvd.
Telephone FL 9-2191

ORLANDO
1511 Sligh Blvd.
Telephone GA 5-3537



Letters

March 6, 1967

Dear Editor

In the March 1967 issue of the Journal in the section "Letters," I note that Dr. Arthur Schiff of Miami, in responding to Dr. Suter's letter, credits Adolph Hitler with the statement "Give me the child until the age of five and you can have him the rest of his life." This is definitely false. Long before Hitler's day, that phrase was known to me and it was attributed to the priesthood—which felt that by molding the mind of the child the tenets and beliefs would persist.

The idea of early indoctrination is certainly true and it would belabor the point to cite personal experiences which are not at issue here.

I felt that attributing such a profound insight to such a one as Hitler should be challenged.

MAX M. KULVIN, M.D.
MIAMI

Meetings

May

11-14 Ninety-Third Annual Meeting, Florida Medical Association, Americana Hotel, Bal Harbour.

17 Psychiatry in Medical Practice, Basic and Advanced Course, Jackson Memorial Hospital, Miami.

18-20 "Current Concepts of Medical and Surgical Shock," Mount Sinai Hospital of Greater Miami, Miami Beach.

THE DUVALL HOME
for RETARDED CHILDREN

A home offering the finest custodial care with a happy home-like environment. We specialize in the care of infants, bed-ridden children and Mongoloids.

For further information write to

MRS. A. H. DUVALL GLENWOOD, FLORIDA

Gebauer's Ethyl Chloride stops creeping eruption cold





highly magnified drawing of the Ancylostoma Braziliense

Creeping eruption is ugly, uncomfortable, and persistent. And, in Florida, it is seen with considerable frequency.

Creeping eruption is caused by the larvae of the dog and cat hookworm, *Ancylostoma Braziliense*. The larvae of this parasite burrow between the superficial layers of the skin, causing much discomfort and characteristic angry eruptions.

Happily, Gebauer Ethyl Chloride sprayed on the affected area for 30 seconds to one minute will usually kill the offending larvae. In difficult cases, it may be necessary to spray for a period of up to two minutes. Improvement and cure generally follow a comparatively few applications.

Next time you treat creeping eruption, treat it with Gebauer Ethyl Chloride. Also highly effective as a topical anesthetic for minor surgery, as in removal of splinters, incision of boils and whitlows, and to alleviate needle pain. May be used for relief of pain such as first and second degree burns, bee stings, sprains and muscle spasm.

GEBAUER PRODUCTS AVAILABLE AT

CORAL GABLES: Surgical Equipment Co. JACKSONVILLE: Central Medical & Surgical Supply • Hermax Corporation • Medical Supply Co. of Jacksonville • Surgical Supply Co. MIAMI: Amedic Surgical Co. • Florida Physicians Supply • Medical Supply Co. ORLANDO: Anderson Surgical Supply Co. • Medical Supply Co. ST. PETERSBURG: Anderson Surgical Supply Co. SARASOTA: Anderson Surgical Supply Co. TALLAHASSEE: Southeastern Surgical Supply Co. TAMPA: Anderson Surgical Supply Co. • Medical Supply Co. • Southern Surgical Supply Co. • Surgical Equipment Co. of Florida. WEST PALM BEACH: Medical Associates Corp. • Medical Supply Co.

OR YOUR LOCAL PHARMACY

Gebauer's

GEBAUER CHEMICAL COMPANY

9410 St. Catherine Ave. • Cleveland, Ohio 44104

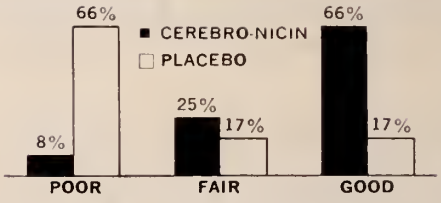
For the treatment of

apathy
irritability
forgetfulness
confusion

in the aging patient

Cerebro-Nicin®

A GENTLE CEREBRAL STIMULANT AND VASODILATOR



CEREBRO-NICIN® New double-blind study* shows how effectively senility can be forestalled. Four times as many aging patients showed striking improvement.

*A Double-Blind Study of Cerebro-Nicin, Therapy for the Geriatric Patient, R. Goldberg, Jrnl. of the Amer. Ger. Soc., June, 1964.

EACH CEREBRO NICIN CAPSULE CONTAINS:

Pentamethylene Tetrazole	100 mg.
Nicotinic Acid	100 mg.
Ascorbic Acid	100 mg.
Thiamine HCl	25 mg.
l-Glutamic Acid	50 mg.
Niacinamide	5 mg.
Riboflavin	2 mg.
Pyridoxine	2 mg.

DOSAGE: One capsule t.i.d. or as prescribed by physician.

AVAILABLE: Bottles of 100, 500, 1000 capsules.
Also elixir pint bottles.

CONTRAINDICATIONS: There are no known contraindications to Pentamethylene Tetrazole although caution should be exercised when treating patients with a low convulsive threshold.

Most persons experience a flushing or tingling sensation after taking a higher potency niacin-containing compound. As a secondary reaction some will complain of nausea and other sensations of discomfort. This reaction is transient and is rarely a cause of discontinuance of the drug if the patient is forewarned to expect the reaction.

Federal law prohibits dispensing without a prescription.

Write for literature and samples . . .

BROWN

THE BROWN PHARMACEUTICAL CO.
2500 W. Sixth Street,
Los Angeles, California 90057

REFER TO PDR

TUCKER HOSPITAL, INC.

212 West Franklin Street

RICHMOND, VIRGINIA

A private hospital for diagnosis and treatment of psychiatric and neurological disorders. Hospital and out-patient services.

JAMES ASA SHIELD, M.D.
GEORGE S. FULTZ, JR., M.D.
CATHERINE T. RAY, M.D.

WEIR M. TUCKER, M.D.
EDWARD W. GAMBLE, III, M.D.
GERALD W. ATKINSON, M.D.

In peptic ulcer... antacid therapy with a new benefit



CONTAINS A BALANCED COMBINATION OF THE MOST WIDELY USED ANTACIDS— FOR RAPID NEUTRALIZATION. PLUS SIMETHICONE— TO CONTROL THE FACTOR WHICH ANTACIDS ALONE CANNOT INFLUENCE.

Mylanta®

- In Mylanta, aluminum and magnesium hydroxides are balanced to minimize the chance of constipation or laxation and still achieve rapid acid neutralization and pain relief.
- The positive action of simethicone helps relieve the painful gas symptoms which often accompany the peptic ulcer syndrome.
- The nonfatiguing flavor and smooth, nongritty consistency of tablets and liquid encourage continued patient cooperation during long-term therapy.

Composition: Each Mylanta chewable tablet or teaspoonful (5 ml.) of liquid contains: magnesium hydroxide, 200 mg.; aluminum hydroxide, dried gel, 200 mg.; simethicone, 20 mg. **Dosage:** one or two tablets, well chewed or allowed to dissolve in the mouth, or one or two teaspoonfuls of liquid to be taken between meals and at bedtime.

The Stuart Company, Pasadena, California
Division of Atlas Chemical Industries, Inc.

Stuart



when he just can't sleep

Tuinal

One-Half Sodium Amobarbital and
One-Half Sodium Secobarbital
supplied in ¾, 1½, and 3-grain Pulvules



Tuinal helps wakeful patients fall asleep fast, stay asleep all night.

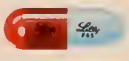
Indications: Tuinal, comprised of equal parts of Seconal® Sodium (sodium secobarbital, Lilly) and Amytal® Sodium (sodium amobarbital, Lilly), is indicated for prompt and moderately long-acting hypnosis. Not suitable for continuous daytime sedation.

Contraindications: Barbiturates should not be administered to anyone with a history of porphyria, nor should they be given in the presence of uncontrolled pain, because excitement may result.

Warning: May be habit-forming.

Precautions: Tuinal should be used cautiously in patients with decreased liver function, since prolongation of effect may occur.

Adverse Reactions: Idiosyncrasy, such as excitement, hangover, or pain, may appear. Hypersensitivity reactions occur in some patients, especially in those with asthma, urticaria, or angioneurotic edema.

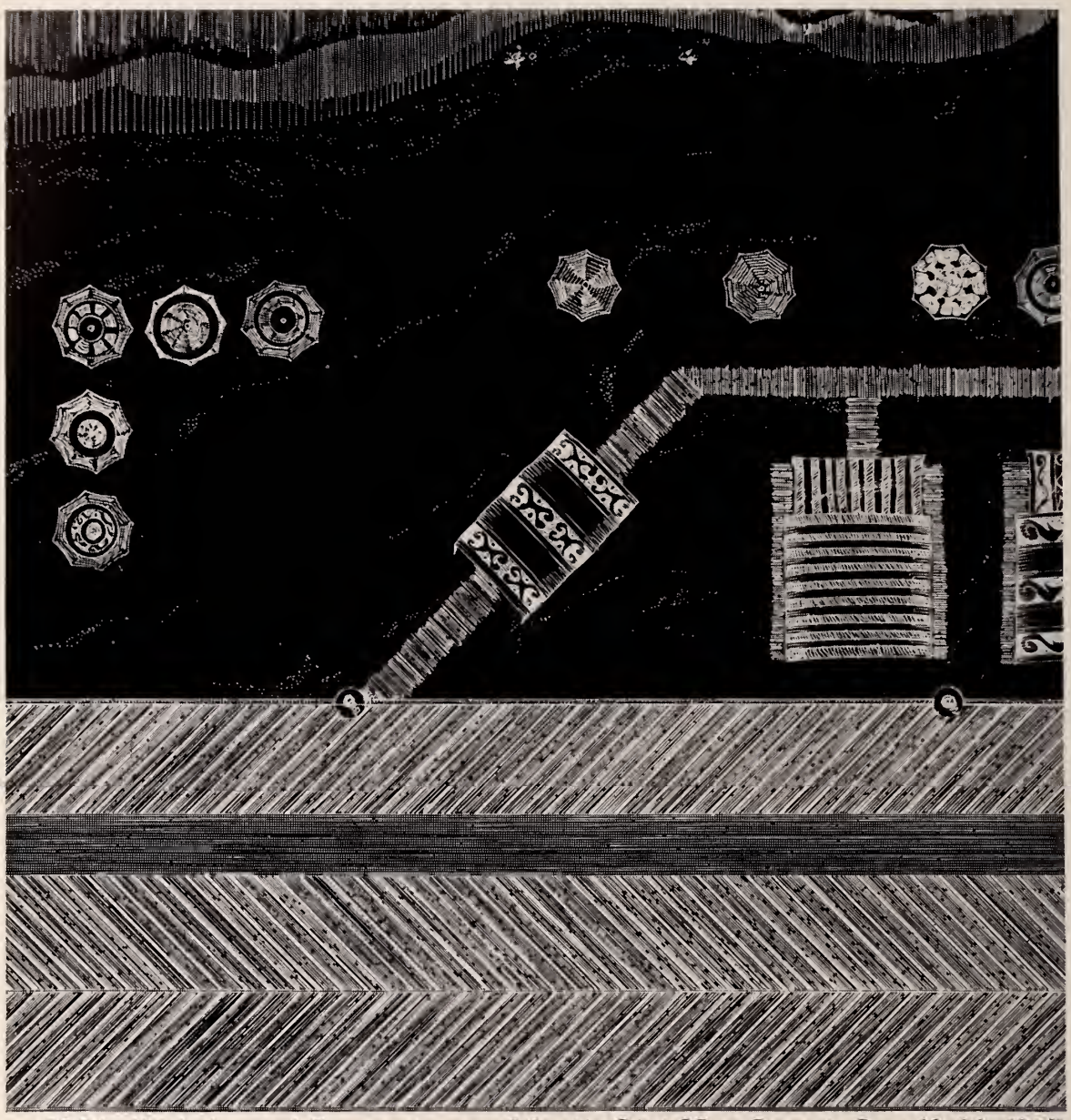


Dosage: 1½ to 3 grains at bedtime.

Additional information available to physicians upon request.
Eli Lilly and Company • Indianapolis, Indiana 46206

Lilly

700695



AMA · 116th Annual Convention · Atlantic City, New Jersey · June 18-22, 1967

Come to Atlantic City—one of America's favorite by-the-sea playgrounds—and join your colleagues at the AMA's 116th ANNUAL CONVENTION!

Fine hotels and motels, excellent restaurants, plus all the advantages of a lively resort make this year's Convention a must for you and your family. Atlantic City provides a superb setting for a summer classroom and all the latest techniques of modern medicine. Plan to be one of the participants in this rewarding four day postgraduate education program.

• Four general scientific sessions • 23 section programs • 575 scientific and industrial exhibits. Lectures, panel discussions, motion pictures, and color television. Plan to attend—continue your postgraduate education.

RESERVE NOW for the SCIENTIFIC AWARDS DINNER in honor of the Scientific Award Winners—Wednesday, June 21, 1967. Since space is limited, we suggest you make your reservations before June 1, 1967. Tickets are $10.00 each, payable in advance.

See JAMA May 8, 1967 for complete scientific program—forms for advance registration and hotel accommodations.

Need a head mirror?



Ask your lab supply man!

Need a placebo?



Phone your pharmacist!

Need optical services?

GUILD Rx OPTICIANS ®

Call on an expert —

YOUR GUILD OPTICIAN!

Your local Guild Optician has the special skills and experience with which to properly serve your patients in the area of optical services. He is, in short, an expert, and here's why:

The Rx you write must be accurately filled and properly adjusted for optimum results. *Your Guild Optician is highly skilled at both.*

Patients with special problems demanding frequent adjustment require special handling — time, patience and infinite care must be devoted to these cases. *Your Guild Optician has these qualities in full measure.*

Your patients must be able to count on the optician to routinely handle any problem of after-service and repair for the life of the glasses they wear. *Your Guild Optician is always available with his skills to help your patients.*

In serving you, the Guild Optician also has a stake in the welfare of your patients; depend on his expert services and experience to be sure your patients are getting the best possible results from the prescriptions you write! *Guild of Prescription Opticians of Florida.*

USING GUILD SKILLS AND EXPERIENCE TO SERVE YOUR PATIENTS



Ballast Point Manor

5226 Nichols St., P. O. Box 13467 Phone 831-4191
Tampa, Florida

Don Savage, Owner-Manager

Care of mild mental cases, senile disorders and invalids. Alcoholics treated. Aged adjudged cases will be accepted on either permanent or temporary basis.

Thomas B. Slade — Fifty Years in Florida — J. Beatty Williams

Surgical SUPPLY COMPANY

HAMILTON — RITTER — SKLAR — BURDICK
CLAY-ADAMS — B-D — BARD-PARKER — TYCOS
BAUM — WELCH-ALLYN AND MANY, MANY OTHERS

Ph. 355-8391 — P. O. Box 2580 — 1050 W. Adams Street — Jacksonville, Fla. 32203

APPALACHIAN HALL

ASHEVILLE — Established 1916 — NORTH CAROLINA



An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.

Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.

Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

Wm. Ray Griffin Jr., M.D.
Robert A. Griffin, M.D.

Mark A. Griffin Sr., M.D.
Mark A. Griffin Jr., M.D.



Others Are Saying

Good Health To All

Hopefully, we can look forward to a year of good health in 1967.

As the *American Medical Association* points out, the past year was one of encouraging developments that may help ensure many of us a longer, more comfortable life.

Here's some of the medical progress of 1966:

—The first successful implantation of artificial devices, popularly but incorrectly called "artificial hearts," into the chests of human beings to aid failing hearts.

—A drug that preliminary investigation indicated may improve memory.

—A dignified scientific study that gives clearer understanding of the mysteries of human sexual response.

—Adaptation and improvement of Russian-built artificial limbs by Canadian physicians. These devices derive motive power from the electric potential of muscle, eliminating the need for straps and springs.

The past year saw many American physicians volunteer their skills to help fill the immense need of the South Vietnamese people for medical care. The program through which they volunteer for 60 days of service in Vietnamese hospitals is known as AMA Volunteer Physicians for Viet Nam.

This past year was one in which American medicine made solid proposals for the kind of medical education required to provide communities with family physicians—a new kind of physician, broadly educated in continuous, comprehensive health care.

Finally, 1966 might be characterized as the year of vaccines. A mumps vaccine proved nearly 100 per cent effective in clinical trials. A prophylactic vaccine showed nearly total effectiveness in protecting unborn infants against the deadly "Rh factor" in some mothers' blood. Work continued on German measles vaccines, with great success reported in human trials. Wide use of existing vaccines was urged in a campaign to stamp out measles.

We are not yet at the end of the road to perfect health. Medicine makes no promise that we will ever get there—certainly not in the near future. Physicians still lose battles against such old killers as heart disease, stroke, and cancer.

But our prospects continue to improve for a rich, full life and a meaningful old age. One of the people we can thank for this is the American doctor.

Reprinted from Dunedin Times, Jan. 5, 1967.

'Old Doc' Is Glad He's Now a Relic

Periodically an anguished cry is heard from America's public.

"Where is the good old-fashioned doctor?" they ask. "What happened to that kind dispenser of medicine, whose nightlong vigil of temperature-taking and brow-mopping pulled little Alice from grave's edge."

The answer is simple: He is gone.

He left with the horse and buggy that carried him on his rounds. He went with the kerosene lamp and pot bellied stove and mustard plaster.

"Old Doc" left when the nation's population jumped 100 million in 50 years.

He disappeared when improvements in diagnosis and surgery passed him by; when better drugs and equipment and facilities became more than he could cope with.

"Old Doc" drifted away when medicine became so complex, so ever-changing that he could no longer encompass it.

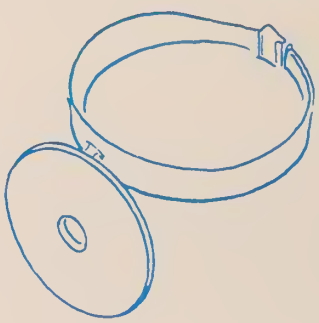
The kind, gentle fellow became a specialist, or rallied the services of specialists. They formed clinics and treated more patients faster and more effectively.

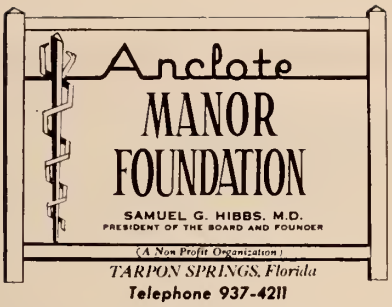
"Old Doc" was replaced by a better-trained, more highly skilled, better-informed counterpart with finer tools.

Frankly, he would want it that way. He knew that his bedside vigil stemmed from frustration. That he mopped little Alice's brow and took her temperature because he knew very little else to do.

And he would smile a bit when the nostalgic called out for his return. For "Old Doc" was a realist. He would know his need has passed.

Reprinted from the Miami Herald.





Member National Association
of Private Psychiatric Hospitals,
Approved by
American Psychiatric Association,
Accredited by Joint Commission
on Accreditation of Hospitals.

A modern hospital offering intensive and comprehensive psychiatric treatment. The completeness of the unification of the entire staff makes the approach unique, but not radical. All acceptable treatment modalities are used but absolute precedence is given to psychotherapy, individual and group, with special attention to the family process.

LORANT FORIZS, M.D., F.A.P.A.
MEDICAL DIRECTOR
WALTER H. WELLBORN, JR., M.D., F.A.P.A.
CLINICAL DIRECTOR
THEODORE E. GAGLIANO, M.D., F.A.P.A., DIPLOMATE
DIRECTOR OF ADMISSIONS,
EDUCATION AND TRAINING

STAFF PSYCHIATRISTS
RONALD M. BACKUS, M.D., DIPLOMATE
JOHN R. ERWIN, M.D., DIPLOMATE
LAWRENCE J. LEWIS, M.D.
RICHARD L. MEADOWS, M.D., DIPLOMATE
CHARLES J. SAPORITO, M.D.
ROBERT G. ZEITLER, M.D.

STAFF PSYCHOLOGISTS
PATRICK J. DIGNAM, PH.D.
DONALD R. FARREN, PH.D.
JAMES B. MORRIS, PH.D.

HIGHLAND HOSPITAL

ASHEVILLE, NORTH CAROLINA

Founded 1904

A DIVISION OF THE DEPARTMENT OF PSYCHIATRY
OF DUKE UNIVERSITY

Accredited by the Joint Commission on Accreditation and Certified for Medicare

Complete facilities for evaluation of and intensive treatment of psychiatric patients, including individual psychotherapy, group therapy, psychodrama, electro-convulsive therapy, Indoklon convulsive therapy, drugs, social service work with families, family therapy, and an extensive and well organized activities program, including occupational therapy, art therapy, athletic activities and games, recreational activities and outings. The treatment program of each patient is carefully supervised in order that the therapeutic needs of each patient may be realized.

Complete modern facilities with 85 acres of landscaped and wooded grounds in the City of Asheville.

Brochures and information on financial arrangements available
Contact: Mrs. Elizabeth Harkins, ACSW, Coordinator of Admissions

or

Charles W. Neville, Jr., M.D.
Assistant Professor of Psychiatry and Medical Director
Area Code 704 - 253-2761

Classified Advertisements

Advertising rates for this column are $5.00 per insertion for ads of 25 words or less. Add 20¢ for each additional word.

physicians wanted

General Practitioners

GENERAL PRACTITIONER WANTED (AAGP) for north Florida college town. Vacancy in busy two man practice in medicine, pediatrics and obstetrics. Immediate excellent income with eventual full partnership. Write C-614, P.O. Box 2411, Jacksonville, Fla. 32203.

EXCELLENT OPPORTUNITY for general practitioner in community of 15,000; central Florida; 76 bed JCAH hospital. Write or call collect R. C. Thompson, Bartow Memorial Hospital, Bartow, Fla.

WANTED: General practitioner associate, leading to partnership. Practice approximately one half industrial. Ideal central Florida community. Send detailed resume to C-716, P.O. Box 2411, Jacksonville, Fla. 32203.

GENERAL PRACTITIONER needed in growing suburban area of 7,000 plus east of Orlando presently without M.D. Area site of new Florida Technological University to be opened 1968. Office space will be built. Contact H. Wayne Todd, D.D.S., 10043 E. Colonial Dr., Orlando 32807, phone (305)277-9420.

GENERAL PRACTITIONER WANTED: Partner, semi-rural practice in central Florida area undergoing rapid industrial expansion. Spacious, fully equipped office including x-ray. Good income without working yourself to death. Write C-749, P.O. Box 2411, Jacksonville, Fla. 32203.

WANTED: General practitioner to join group for partnership in Miami area. Must have Florida license and fulfilled military obligation. Write Medical Business Consultants, 9999 N.E. 2nd Ave., Miami Shores, Fla. 33138.

Locum Tenens

PHYSICIAN WANTED as a locum tenens for July and August in general practice. Remuneration may be as high as $7,500 net for this period. Future association possible. Send full curriculum vitae with first letter. Write C-744, P.O. Box 2411, Jacksonville, Fla. 32203.

Specialists

PEDIATRICIAN: Board eligible, to join two board pediatricians in rapidly growing Southeastern Florida coastal college town. Early partnership anticipated, excellent hospitals nearby. Send references and curriculum vitae in first letter. C-719, P.O. Box 2411, Jacksonville, Fla. 32203.

WANTED IMMEDIATELY: Pediatrician, internist to join surgeon in a group. Best references required. Salary of $25,000. Write C-728, P.O. Box 2411, Jacksonville, Fla. 32203.

OBSTETRICIAN-GYNECOLOGIST WANTED: To associate with two man group. Large established practice in Miami; Board eligible or certified; prefer under age 35. Write P.O. Box 384, Miami Shores, Fla. 33153.

WANTED: Board eligible general surgeon under age 40 for association with two general surgeons in greater Miami area. Florida license required. Write C-699, P.O. Box 2411, Jacksonville, Fla. 32203.

PEDIATRICIAN: To join two pediatricians (shared expenses- individual practices). Must be board qualified, have Florida license, and under age 40. Choice city lower West coast. Write C-729, P.O. Box 2411, Jacksonville, Fla. 32203.

INTERNIST WANTED: Preferably young board qualified or certified internist to associate with well established certified internist in Ft. Lauderdale, Florida. Terms open. Send details first letter. Write C 752, P.O. Box 2411, Jacksonville, Fla. 32203.

OPHTHALMOLOGIST ASSOCIATE wanted immediately. Board certification preferred. Send complete resume with references. All inquiries held in strict confidence. Choice lower East coast city. Financial aspect open. Write C-754, P.O. Box 2411, Jacksonville, Fla. 32203.

NEUROLOGIST: A challenging opportunity for neurologist interested in Parkinsonism in facility devoted exculsively to this illness. Large number of Parkinson patients available daily. Excellent working conditions. Florida license required. Five day week. Fringe benefits. References required. Box 333, Miami, Florida 33101.

PEDIATRICIAN WANTED: Board eligible, to join booming pediatric practice in East Florida coastal town. Write all particulars in first letter. Write C-756, P.O. Box 2411, Jacksonville, Fla. 32203.

WANTED: Internist to join a small multi-specialty group in central Florida city of 70,000 with excellent hospital facilities. Terms open. Military obligation must be completed. Write C-757, P.O. Box 2411, Jacksonville, Fla. 32203.

OBSTETRICIAN-GYNECOLOGIST wanted soon as associate or partner in a two office established practice in southeast Florida. Write C-701, P.O. Box 2411, Jacksonville, Fla. 32203.

real estate

FOR RENT: Two offices in professional building with other doctors and dentists. Fine location with ample parking. One office 1,000 sq. ft. and the other 1,100. Write Clara M. Hensley, 1724 Drew St., Clearwater, Fla.

MEDICAL OFFICE: Ultra-modern building. All services provided. Parking available. Five medical specialists, pharmacy, medical lab now installed. Space for one to three doctors. Write: New England Corporation, 240 New England Building, Winter Park, Fla. 32789. Telephone 644-8217.

AVAILABLE: Otolaryngology office. Immediate occupancy. Ideal location. Excellent opportunity. Capable gross $35,000-$50,000 first year. Owner retiring. Sell or lease. Location excellent for general practice. Write C-746, P.O. Box 2411, Jacksonville, Fla. 32203.

RENTAL PROFESSIONAL SUITES: Will divide 2,250 sq. ft. to tenants' specifications. Modern professional building. Ideal location. Ample parking. 1300 N. Federal Highway, Lake Worth, Fla. 33460. (305) 582-1760.

practices available

ACTIVE GENERAL PRACTICE AVAILABLE on or before June 1. Beach community of 10,000; 50 bed hospital. Office and equipment available. Write C-745, P.O. Box 2411, Jacksonville, Fla. 32203.

RETIRING BOARD INTERNIST practice and equipment for sale. Reasonable terms. Established 30 years. Will introduce. Miami Beach, Florida. Write C-743, P.O. Box 2411, Jacksonville, Fla. 32203.

situations wanted

RELOCATION WANTED: Bored board general surgeon, Cleveland, wishes to relocate in Florida. Interested in solo, partnership or group practice. Now in practice. Age 45. Have Florida license. Write C-751, P.O. Box 2411, Jacksonville, Fla. 32203.

LOCUM TENENS in psychiatry wanted by third year resident who plans to enter practice in Florida in June 1968. Available for two to four weeks this summer. Write C-750, P.O. Box 2411, Jacksonville, Fla. 32203.

INTERNIST, 32, university-trained with subspecialty gastroenterology seeks association with other internists. Military obligation complete. Board eligible. Prefer northern Florida, either coast. Florida licensed. Write C-755, P.O. Box 2411, Jacksonville, Fla. 32203.

FLORIDA LICENSED PHYSICIAN with experience in medicine and surgery wishes locum tenens for July or August or both. Write C-753, P.O. 2411, Jacksonville, Fla. 32203.

Miscellaneous

WANTED: Pediatrician, internist, general practitioner. Where? Apopka, Fla., 12 miles west of Orlando, Florida. Why? — new hospital, one-half completed, will open fall of '67, area of 38,000-40,000 with presently 3 physicians and one Ob-Gyn specialist. Seeing is believing! Call Apopka, Fla. collect: 889-2232 or write Dr. Maier, Box 155, Apopka, Fla. 32703.

OPPORTUNITY FOR DOCTORS who want to join a multi-specialty group—who want to practice in Florida. A senior surgeon with a large practice and with adequate facilities including laboratory, x-ray and physical therapy departments, desires to confer with board eligible or board certified doctors. The intent is to form a new multi-specialty group practice. Close proximity to a new 500 bed hospital. All inquiries held in strict confidence. Reply to: Jay S. Lombardy & Associates, Management to the Medical Profession, 1177 N.E. 8th St., Delray Beach, Florida 33444.

FLORIDA LICENSED PHYSICIANS: Two for emergency room coverage; contract annual salary $18,000-$20,000. Contact Administrator or Assistant Administrator, Memorial Hospital, Hollywood, Florida 33021.

The Florida Medical Association offers placement assistance through the Physician Placement Service, P. O. Box 2411, Jacksonville 32203. This service is for the use of physicians seeking locations, as well as physicians seeking associates, and is without charge.

Florida Medical Association

735 Riverside Ave., P. O. Box 2411

Jacksonville, Florida 32203

Officers

George S. Palmer, M.D., President ..... Tallahassee
W. Dean Steward, M.D., President-Elect ..... Orlando
William J. Dean, M.D., Vice President ..... St. Petersburg
Franklin J. Evans, M.D., Speaker of the House ..... Coral Gables
James T. Cook, M.D., Vice Speaker ..... Marianna
Floyd K. Hurt, M.D., Secretary-Treasurer ..... Jacksonville
H. Phillip Hampton, M.D., Immediate Past President ..... Tampa
W. Harold Parham, Executive Director ..... Jacksonville

Councils

Jesse W. Castleberry, M.D., Chairman, Council on Allied Professions and Vocations ..... Orlando
John J. Cheleden, M.D., Chairman, Judicial Council ..... Daytona Beach
Joseph C. VonThron, M.D., Chairman, Council on Legislation and Public Agencies ..... Cocoa Beach
Jack A. MaCris, M.D., Chairman, Council on Medical Economics ..... St. Petersburg
David W. Martin, M.D., Chairman, Council on Medical Education and Hospitals ..... West Palm Beach
William R. Daniel, M.D., Chairman, Council on Medical Services ..... Orlando
Richard C. Dever, M.D., Chairman, Scientific Council ..... Miami
Warren W. Quillian, M.D., Chairman, Council on Special Activities ..... Coral Gables
Edward W. Cullipher, M.D., Chairman, Council on Specialty Medicine ..... Miami
Mason Romaine III, M.D., Chairman, Council on Voluntary Health Agencies ..... Jacksonville

Information for Authors

Manuscripts submitted for publication in the Journal of the Florida Medical Association should be double or triple spaced on white bond, including title page, illustration legends, charts and graphs, table headings, footnotes and bibliography.

Submit original manuscript and two copies. Copying by electrostatic dry process (not wet process) is preferred to tissue copies. Retain one additional copy in your office for proofreading. All material is submitted with the understanding it is subject to editing.

Photographs should be submitted as 5x7 glossy prints, untrimmed and unmounted; number each photograph *lightly* on the back with pencil and indicate top. Charts, graphs and medical illustrations should be submitted as india ink drawings on white gloss paper; remember to make details large enough to allow for photographic reduction. It is a policy of the Journal that authors pay for any cuts made to illustrate their papers.

Titles should be short, specific and clear. Omit phrases such as "The Use of," "Observations on." If paper was presented at a meeting, indicate name of organization, city, month, day and year.

Only original papers not previously published are accepted for publication. Manuscripts submitted for publication are subject to review and approval by the Journal Publications Committee. Except by invitation, only papers from members of the Florida Medical Association are considered for publication.

References should be typewritten, double or triple spaced, beginning on a new sheet of paper entitled "References." Number references in the text in order of citation and prepare bibliography in the same order. Bibliographies should conform to the style of the Index Medicus. The Journal prints only bibliographies of eight references or less; bibliographies of more than eight references are referred to at the end of the paper with the statement "References are available from the author upon request."

All manuscript pages should be numbered consecutively. Within the manuscript, numbers one to nine should be spelled out except when used for units of measurement; for numbers above nine, numerals should be used. Dorland's Medical Dictionary and Webster's International Dictionary may be used as standard references. Scientific names for drugs should be used when possible. Copyright or trade names of drugs should be capitalized.

Index to Advertisers

Abbott Laboratories
Erythrocin Sulfas 418-420

Ames Co., Inc.
Labstix 426-427

Anclote Manor Foundation 523

Anderson Surgical Supply Co. 514

Appalachian Hall 520

Ayerst Laboratories
Mediatric 508-509

Ballast Point Manor 520

Bristol Laboratories
Tetrex-F 431
Prostaphlin 478-479

Brown Pharmaceutical Co.
Cerebro-Nicin 518

Burroughs-Wellcome Co.
Neosporin 430a

Convention Press 514

Dorsey Laboratories
Triaminic 502a

Duvall Home 516

Gebauer Chemical Co.
Ethyl Chloride 517

Geigy Pharmaceuticals
Tandearil 422, 422a
Hygroton 474a
Dulcolax 430a

Guild of Prescription Opticians 519

Highland Hospital 523

Hill Crest Hospital 511

Hynson, Westcott & Dunning, Inc.
Lutrexin 415

Lakeside Laboratories
Mercuhydrin 424
Imferon 484
Norpramin 501

Lederle Laboratories
Aristocort 423
Stresscaps 474a
Declomycin 430a
Tine Test 500

Eli Lilly & Co.
Co-Pyronil 432
Ilosone 422a
Tuinal 518a
V-Cillin K. 510a

Loma Linda Foods
Soyalac 502

Medical Supply Co. 516

William S. Merrill Co.
Alertonic 428-429

Parke-Davis & Co.
Benadryl ..... Second Cover

Pitman-Moore Co.
Novahistine LP 480

P. L. Dodge Memorial Hospital 514

PM of Florida 516

William P. Poythress & Co.
Mudrane 420

Roberts Perfection Foods, Inc.
Dairy Products 483

A. H. Robins, Inc.
Ambar 505

Roche Laboratories
Gantanol 474a
Valium 476-477
Librium ..... Back Cover

J. B. Roerig & Co.
Antivert Neobon 510a

Wm H. Rorer, Inc.
Novestrol 506-507
Emetrol 511

Sandoz Pharmaceuticals
Mellaril 422a

G. D. Searle Co.
Flagyl 474a

Stuart Co.
Mylanta 518a

Surgical Supply Co. 520

Syntex Laboratories
Norinyl 489-492
Salesmen 493
Synalar 494-497

Tucker Hospital, Inc. 518

S. J. Tutag
Aquatag 427

Walker Laboratories
Quinamm 515

Winthrop Laboratories
Neggram 416

Wyeth Laboratories
Equanil 512-513

Wynn Pharmaceuticals, Inc.
Numa Dura-Tabs 430
Aminophylline Dura-Tabs 481

New York Academy of Medicine
2 East 103rd St
New York N Y J 12-67
10029

LIBRARY
MAY
NEW YORK ACADEMY
OF MEDICINE

WHEN ANXIETY IS A SIGNIFICANT COMPONENT OF THE CLINICAL PROFILE

LIBRIUM®
(chlordiazepoxide HCl)

Also available as
LIBRITABS™ (chlordiazepoxide)
5-mg, 10-mg, 25-mg tablets

ROCHE

Before prescribing, please consult complete product information, a summary of which follows:

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver-function tests advisable during protracted therapy.

Usual Daily Dosage: Individualize for maximum beneficial effects. *Oral*—Adults: Mild and moderate anxiety and tension, 5 or 10 mg t.i.d. or q.i.d.; severe states, 20 or 25 mg t.i.d. or q.i.d. Geriatric patients: 5 mg b.i.d. to q.i.d. (See Precautions.)

Supplied: Librium® (chlordiazepoxide HCl) Capsules, 5 mg, 10 mg and 25 mg—bottles of 50. Libritabs™ (chlordiazepoxide) Tablets, 5 mg, 10 mg and 25 mg—bottles of 100. With respect to clinical activity, capsules and tablets are indistinguishable.

Roche Laboratories • Division of Hoffmann-La Roche Inc • Nutley, N.J. 07110

JUNE, 1967
Volume 54
Number 6

The JOURNAL of the Florida Medical Association

In This Issue

Amebiasis
Abdominal Pregnancy
Anticoagulant Therapy
MD and Criminal Responsibility
Acute Hemorrhagic Pancreatitis

OFFICIAL PUBLICATION OF THE FLORIDA MEDICAL ASSOCIATION

some allergens are green

whatever their color, shape, or size...

Benadryl®

(diphenhydramine hydrochloride)

PARKE-DAVIS

for control of allergic symptoms



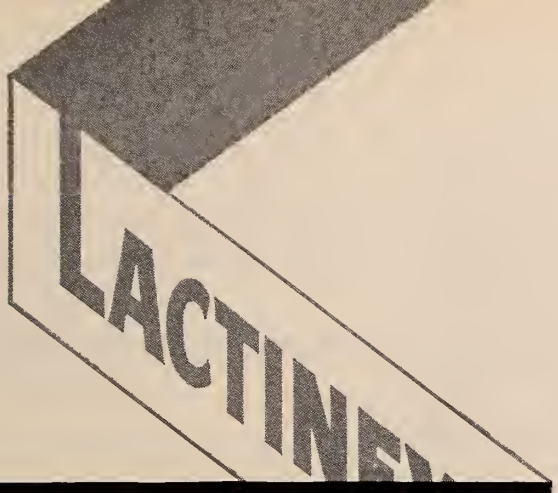
Whether the allergen is greenish or garish, unseen or unknown, your patient can get symptomatic relief with BENADRYL—the potent antihistamine with antispasmodic action. *INDICATIONS:* Antihistaminic, antispasmodic, antitussive, and antiemetic therapy. *PRECAUTIONS:* Persons who have become drowsy on this or other antihistamine-containing drugs, or whose tolerance is not known, should not drive vehicles or engage in other activities requiring keen response while using this product. Hypnotics, sedatives, or tranquilizers if used with diphenhydramine hydrochloride should be prescribed with caution because of possible additive effect. Diphenhydramine has an atropine-like action which should be considered when prescribing diphenhydramine hydrochloride. *ADVERSE REACTIONS:* Side effects are generally mild and may affect the nervous, gastrointestinal, and cardiovascular systems. Drowsiness, dizziness, dryness of the mouth, nausea, nervousness, palpitation, blurring of vision, vertigo, headache, muscular aching, thickening of bronchial secretions, restlessness, and insomnia have been reported. Allergic reactions may occur.

BENADRYL is available in Kapseals® of 50 mg. and Capsules of 25 mg.

00867

The pink capsule with the white band is a trademark of Parke, Davis & Company.

PARKE-DAVIS



LACTINEX®

TABLETS & GRANULES

■ to help restore and stabilize the intestinal flora

■ for fever blisters and canker sores of herpetic origin

LACTINEX contains both *Lactobacillus acidophilus* and *L. bulgaricus* in a standardized viable culture, with the naturally occurring metabolic products produced by these organisms.

First introduced to help restore the flora of the intestinal tract in infants and adults,[1,2,3,4] LACTINEX has also been shown to be useful in the treatment of fever blisters and canker sores of herpetic origin.[5,6,7,8]

No untoward side effects have been reported to date.

Literature on indications and dosage available on request.

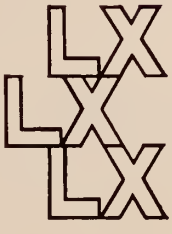
References:

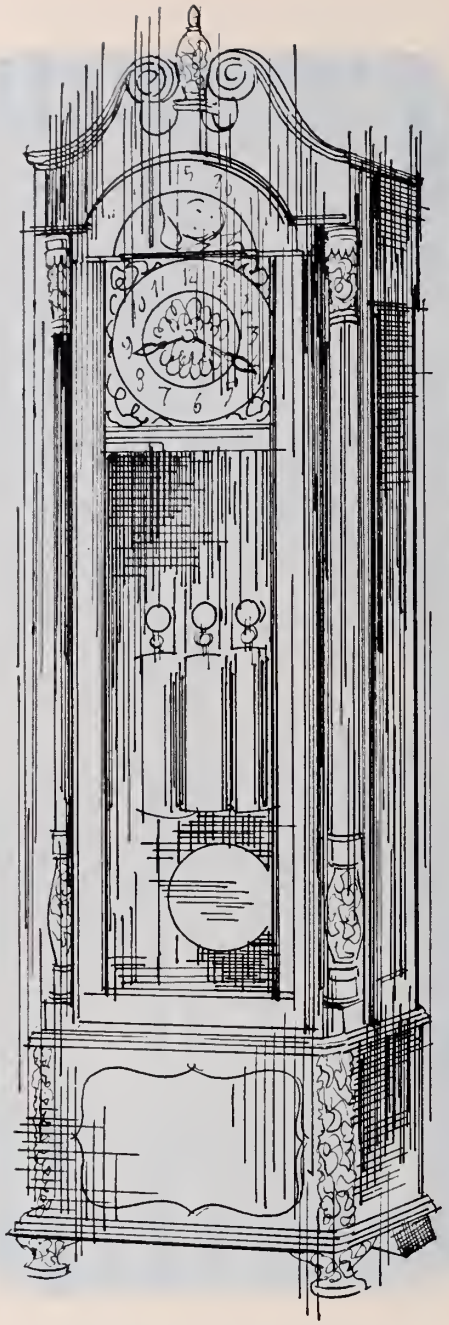
(1) Siver, R. H.: CMD, *21*:109, September 1954. (2) Frykman, H. H.: Minn. Med., *38*:19-27, January 1955. (3) McGivney, J.: Tex. State Jour. Med., *51*:16-18, January 1955. (4) Quehl, T. M.: Jour. of Florida Acad. Gen. Prac., *15*:15-16, October 1965. (5) Weekes, D. J.: N.Y. State Jour. Med., *58*:2672-2673, August 1958. (6) Weekes, D. J.: EENT Digest, *25*:47-59, December 1963. (7) Abbott, P. L.: Jour. Oral Surg., Anes., & Hosp. Dental Serv., 310-312, July 1961. (8) Rapoport, L. and Levine, W. I.: Oral Surg., Oral Med. & Oral Path., *20*:591-593, November 1965.

HYNSON, WESTCOTT & DUNNING, INC.

BALTIMORE, MARYLAND 21201

(LX04)





IN UROLOGY, TOO,

YOU CAN'T TURN BACK THE CLOCK

Many urologic problems in older patients are as much the result of the aging process as the consequence of any specific disease process. The aging bladder may lose its resistance to infection. The prostate gland may not be sufficiently enlarged to require surgery, but can cause intermittent difficulties in micturition. Post-menopausal atrophy of the genital organs may also involve the lower part of the urinary tract.

URISED®

Each blue-coated tablet contains active:

Atropine Sulfate	0.03 mg.	Methylene Blue	5.4 mg.
Hyoscyamine	0.03 mg.	Phenyl Salicylate	18.1 mg.
Methenamine	40.8 mg.	Benzoic Acid	4.5 mg.

Even though they cannot be permanently cured, these patients demand and deserve relief. URISED is an agent which you can prescribe with confidence. It has a mild antibacterial action, a mild antispasmodic action and helps to soothe the irritated bladder and urethral mucosa. For over 50 years URISED has exhibited no toxic effects — even on prolonged use. And the presence of methylene blue in the urine is indicative that the medication has been taken by your patient.

INDICATIONS: URISED is safe . . . especially useful in long-term management of chronic cases; as a prophylactic measure with catheterization or after instrumentation. No systemic reactions or bacterial resistance have been reported.

URISED rapidly exerts spasmolytic action, relieving pain and discomfort of urgency, frequency, and burning on urination.

Rapid acting URISED exerts antibacterial action against uropathogens susceptible to methenamine and methylene blue, in an acid medium.

PRECAUTIONS: Administer with caution to persons with atropine idiosyncrasy or cardiac disease. While under this therapy the urine is blue; patients should be so advised to allay apprehension.

SIDE EFFECTS: If pronounced dryness of the mouth, flushing, or difficulty in initiating micturition occur, decrease dosage. If rapid pulse, dizziness, or blurring of vision occur, discontinue use immediately. Acute urinary retention may be precipitated in prostatic hypertrophy.

CONTRAINDICATIONS: Glaucoma, urinary bladder neck or pyloric obstruction, duodenal obstruction and cardiospasm. Hypersensitivity to any of the ingredients.

DOSAGE: Adults—Two tablets, orally, four times per day, followed by liberal fluid intake.

Acute cases: Initially two tablets every hour for three doses, followed by the recommended daily administration.

Children: One-half the adult dose.

(Stocked nationally through all service wholesale druggists)

CONAL
PHARMACEUTICALS, INC.
CHICAGO, ILLINOIS 60640

MANUFACTURERS OF URICEUTICAL® SPECIALTIES

• CYSTOSPAZ® • URISEDAMINE® • ŪTRASUL® Tablets and Suspension

The JOURNAL
of the Florida Medical Association

Volume 54, Number 6, June 1967

THAD MOSELEY, M.D.
Editor

Assistant Editors

JOHN M. PACKARD, M.D.
OSCAR W. FREEMAN, M.D.

Assistant Editor from the Board of Governors
JACK Q. CLEVELAND, M.D.

W. HAROLD PARHAM
Managing Editor

EUGENE L. NIXON
Associate Managing Editor

LOUISE RADER
Assistant Managing Editor

EDITH B. HILL
Editorial Consultant

Published monthly at Jacksonville, Florida. Price $7.00 a year; single numbers, 70 cents. Address Journal of Florida Medical Association, P.O. Box 2411, 735 Riverside Ave., Jacksonville, Fla. 32203. Telephone (904) 356-1571. Accepted for mailing at special rate of postage provided for in Section 1103, Act of Congress of October 3, 1917; authorized October 16, 1918. Entered as second class matter under Act of Congress of March 3, 1879, at the post office at Jacksonville, Florida, October 23, 1924.

THIS ISSUE

Scientific Section

The Doctor and Criminal Responsibility, Gustave Newman, M.D. and Rufus M. Vaughn, M.D. ... 559
Relationship of Amebiasis to Obstetric-Gynecologic Complaints, Malcolm C. Crotzer, M.D. ... 562
Acute Hemorrhagic Pancreatitis During Pregnancy and the Puerperium Associated With Thiazide Therapy, Donald Menzies, M.D. and Harry Prystowsky, M.D. ... 564
Abdominal Pregnancy With Fetal Death at Twenty-nine Weeks, Jackson L. Allgood Jr., M.D. and Henry H. Payne Jr., M.D. 566
Long Term Anticoagulant Therapy, Matthew H. Bradley, M.D. 569

Special Articles

Back to Fee Schedules, Jack A. MaCris, M.D. ... 542
Problems in Medical Education in Florida, Max Michael Jr., M.D. ... 554
On the Profession of Medicine, Glenn W. Geelhoed ... 581
A Partnership Between the Practice of Medicine and Educational Institutions, Emanuel Suter, M.D. ... 607

Editorials

Amebiasis, Malcolm T. Foster Jr., M.D. ... 575
Acute Hemorrhagic Pancreatitis, J. Robert Qualey, M.D. ... 577

Departments

President's Page ... 573
News ... 538
Others Are Saying ... 547
Association News ... 589
Letters ... 596
Meetings ... 598
Public Health Topics ... 601
The Medical Detective ... 604
Classified ... 612

Miscellaneous

Florida Medical Association Officers and Council Chairmen ... 614
Information for Authors ... 614
Index to Advertisers ... 615

Owned and published by the Florida Medical Association, Inc. The Journal is not responsible for the opinions and statements of its contributors.

Wounds, abscess, cellulitis



..and the complications of staph.

Staph reliably controlled with specific therapy



suitable dosage form for every staph situation

From time of birth, the child is exposed to a whole range of potential staph infections: wounds; secondarily infected dermatoses; primary lesions, such as deep impetigo (ecthyma), boils and felons; and more serious conditions such as osteomyelitis, staph pneumonia and staph meningitis.

Bactericidal

Hardly a staph organism can resist the bactericidal action of Prostaphlin® (sodium oxacillin), as shown by a 34-month *in vitro* study. Of all staph isolates tested, 99.5% were sensitive to oxacillin.[1]

Clinically Proven

There is a high correlation between these *in vitro* findings and clinical results. Of 610 patients treated with Prostaphlin (sodium oxacillin), 89.8% were reported cured or improved, including those with staph infections resistant to penicillin G.[2] And since resistance does not appear to develop *in vivo*, therapy with oxacillin can be extended when necessary.

Outstanding Safety Record

Besides being staph-specific and rapidly absorbed—Prostaphlin (sodium oxacillin) has established an outstanding record of safety during five years of widespread clinical use. Continuous high blood levels of oxacillin have not produced toxic effects on kidney function, assuring a significant margin of safety. However, as with all penicillins, the possibility of allergic response should be considered.

Capsules, Oral Suspension and Injectable

Prostaphlin (sodium oxacillin) is available in three flexible dosage forms to suit the age of the patient and severity of infection—an oral solution for pediatric use, capsules, and multi-dose vials for injection.

PRESCRIBING INFORMATION: For complete information, consult Official Package Circular. *Indications:* Infections caused by Staphylococci, particularly those due to penicillin G-resistant Staphylococci. *Contraindications:* A history of severe allergic reactions to penicillin. *Precautions:* Typical penicillin-allergic reactions may occur. Safety for use in pregnancy and premature infants is not established. Because of limited experience, use cautiously and evaluate organ system function frequently in neonates. Mycotic or bacterial superinfections may occur. Assess renal, hematopoietic and hepatic function intermittently during long-term therapy. *Adverse Reactions:* Skin rashes, pruritus, urticaria, eosinophilia, nausea, vomiting, diarrhea, fever and occasional anaphylaxis. Rare cases of reversible hepatocellular dysfunction have occurred. Moderate SGOT elevations have been noted. Thrombophlebitis has occurred occasionally during intravenous therapy and leukopenia was noted in two cases. *Usual Oral Dosage:* Adults: 500 mg. *q.* 4 or *q.* 6 *h.* Children: 50 mg./Kg./day. *Usual Parenteral Dosage:* Adults: 250-500 mg. *q.* 4 or *q.* 6 *h.* Children: 50 mg./Kg./day. Treat beta-hemolytic streptococcal infections for at least 10 days. Give oral drug 1 to 2 hours before meals. *Supplied:* Capsules—250 and 500 mg. in bottles of 48. Injectable—250 mg., 500 mg., and 1 Gm. dry filled vial for I.M./I.V. use. For Oral Solution—100 ml. bottle, 250 mg./5 ml. when reconstituted. **A.H.F.S. CATEGORY 8:12.16**

References: 1. Abstracted from *Antibiotic Sensitivity of Staphylococci Studied from November 1962 through August 1965,* reported by Griffith, L.J., Staphylococcus Reference Laboratory, V.A. Hospital, Batavia, N.Y. 2. Data on file, Bristol Laboratories.

BRISTOL

BRISTOL LABORATORIES/Division of Bristol-Myers Co., Syracuse, N.Y.

Whenever you suspect staph PROSTAPHLIN®

SODIUM OXACILLIN



now Novestrol™ (ethinyl estradiol U.S.P.)

estrogen replacement therapy

for the menopausal syndrome and female hypogonadism. Novestrol, a pure synthetic estrogen derivative, is related to estradiol which is the primary hormone of the ovarian follicle. It is effective orally and has all the actions of naturally occurring estrogen.

Ethinyl estradiol is the most active estrogen known. In addition to its high potency, Novestrol offers patients the advantages of minimal side effects, low cost, and convenience. Usually only a single daily dose is necessary.

Description: Each green, sugar-coated tablet contains 0.02 mg. of ethinyl estradiol U.S.P., a pure synthetic estrogen derivative, the most active estrogen known.
Indications: Menopausal syndrome and female hypogonadism.
Contraindications: Patients with tumors which estrogen might stimulate.
Precautions: Examine patients for mammary or reproductive system neoplasm. Give with great care, if at all, to patients who have precancerous lesions or family history of cancer.

Prolonged administration or high doses may produce anterior pituitary suppression. Endometrial bleeding can usually be avoided by cyclic administration at lowest effective dose and addition of progesterone during last half of cycle. Endometrial hyperplasia may develop in spite of cyclic therapy.
Side Effects: Occasional gastrointestinal disturbances, headache and vertigo. These usually disappear following proper dosage reduction.
Dosage and Administration: Determine minimum effective dose and maintain only as long as necessary.

Menopausal Syndrome: One or two tablets (0.02 or 0.04 mg.) daily. Omit therapy one week each month. Repeat cyclic therapy until satisfactory response is obtained. Advise patient that vaginal bleeding may occur.

Female Hypogonadism: Two tablets (0.04 mg.) one to three times daily for two weeks followed by progesterone for two weeks. Continue cyclic therapy for 3-6 months; then withdraw therapy to determine if normal cycle will be instituted. Additional cyclic therapy may be required in some patients.



WILLIAM H. RORER, INC. Fort Washington, Pa.

NEWS

UM Dental Research Team Continues Search For Villain Attacking Teeth

The hunt for the villain that attacks our teeth is still on, according to Dr. Doran D. Zinner and his dental research team at the University of Miami School of Medicine.

There are three suspects—all streptococci taken from human teeth—and all of them are known delinquents, Dr. Zinner reported to the annual meeting of the International Association for Dental Research in Washington on March 17.

Dr. Zinner's paper, "An Epidemiologic Study of Human Strains in Cariogenic Streptococci," described the results of a study of student's teeth in two high schools in Dade County.

"The streptococcal strain called HHT," Dr. Zinner said, "induces relatively minor tooth decay in animals. In humans, in many instances, HHT is found on the gums of infants one day after birth, before their teeth have appeared at all.

"A second strain, BHT, induces a cariogenic situation in animals that is twice as bad as when HHT is introduced alone. Trouble is, HHT and BHT practically always are found together in the human mouth. There is the added complication that these organisms are sometimes present in the oral flora (bacteria) where no tooth decay is taking place.

"A possible explanation for this," Dr. Zinner continued, "is that the organisms may exist in the oral flora in the 'carrier state' without producing active infection. A similar situation is often encountered with the presence of Group A streptococci in throat cultures without a concurrent sore throat. Thus, in the case of the cariogenic streptococci, the presence of these organisms in the oral flora does not necessarily denote that cariogenic activity is about to take place. The organisms may exist in a balanced state—but when environmental changes occur, or large amounts of table sugar, or foods containing this kind of sugar, are added, the organisms may increase in numbers and caries may follow, regardless of the type of cariogenic microorganism.

"And then there is the AHT streptococcal strain. That is the worst offender of them all, being found where cariogenic activity in animals is twice as bad as when BHT alone is found in the mouth."

AHT certainly looks like the bug that could commit the more serious kind of crime, but Dr. Zinner concludes:

"Attempts to correlate caries data solely on the basis of this or any other single organism is questionable because of the presence of the other two types of streptococci."

Teen Education Program Sponsored by BCMA

The Broward County Medical Association through its President, Dr. Ray E. Murphy, is sponsoring a countywide educational program for parents and their teenage sons and daughters covering problems regarding sex, drugs and other related subjects. Dr. Murphy suggested Broward County School officials provide direct teaching of these subjects under a program entitled "Personal Hygiene." Attendance at the courses would be voluntary and subject to parental approval.

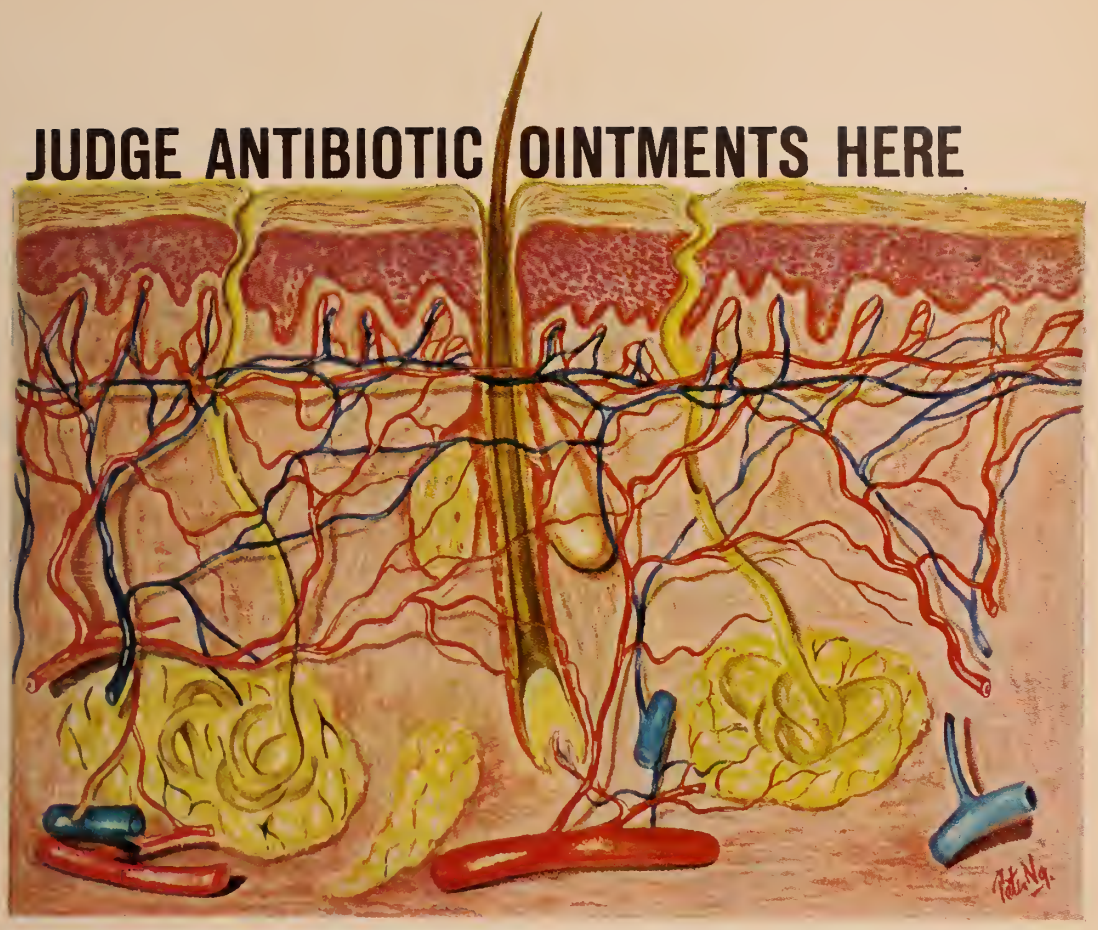
Dr. Murphy has directed Dr. David J. Lehman of Hollywood and a small committee to handle this program for the BCMA. The program has been "on the drawing board" for the past nine months.

Consultation with the school system to date has indicated the possibility of integrating the project into personal hygiene programs now existing in some schools.

FMA Member Honored

At a recent meeting of the Board of Medical Directors of the Asthmatic Children's Foundation of Florida, FMA member Dr. Jack Rudolph, Miami, was elected 1967 Chairman. This organization is in its third year of operation in North Miami and is devoted to the residential care of the intractable asthmatic child.

JUDGE ANTIBIOTIC OINTMENTS HERE



Results on skin are final proof of any topical antibiotic's effectiveness

No in vitro test can duplicate a clinical situation on living skin. 'Neosporin' (polymyxin B—bacitracin—neomycin) Ointment has consistently proven its effectiveness in thousands of cases of bacterial skin infection. The spectra of the three antibiotics overlap in such a way as to provide bactericidal action against most pathogenic bacteria likely to be found topically. Diffusion of the antibiotics from the special petrolatum base is rapid since they are insoluble in the petrolatum, but readily soluble in tissue fluids. The Ointment is bland and nonirritating.

Caution: As with other antibiotic preparations, prolonged use may result in overgrowth of nonsusceptible organisms and/or fungi. Appropriate measures should be taken if this occurs. Articles in the current medical literature indicate an increase in the prevalence of persons allergic to neomycin. The possibility of such a reaction should be borne in mind.

Contraindications: This product is contraindicated in those individuals who have shown hypersensitivity to any of its components.

Supplied: Tubes of 1 oz., ½ oz. with applicator tip, and ⅛ oz. with ophthalmic tip.

Complete literature available on request from Professional Services Dept. PML.

'NEOSPORIN'®

brand

POLYMYXIN B-BACITRACIN-NEOMYCIN OINTMENT

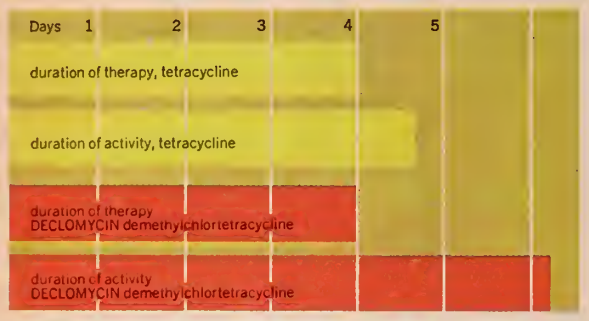
BURROUGHS WELLCOME & CO. (U.S.A.) INC., Tuckahoe, N.Y.

why wonder about a drug

when you know

DECLOMYCIN®
DEMETHYLCHLORTETRACYCLINE

produces 1-2 "extra" days' activity



1-2 "extra" days' activity
after the last dose to protect against relapse

one 300 mg tablet b.i.d.
or
one 150 mg capsule q.i.d.

Effective in a wide range of everyday infections — respiratory, urinary tract and others — in the young and aged — the acutely or chronically ill — when the offending organisms are tetracycline-sensitive.

Contraindication — History of hypersensitivity to demethylchlortetracycline.

Warning — In renal impairment, usual doses may lead to excessive systemic accumulation and liver toxicity. Under such conditions, lower than usual doses are indicated and, if therapy is prolonged, serum level determinations may be advisable. A photodynamic reaction to natural or artificial sunlight has been observed. Small amounts of drug and short exposure may produce an exaggerated sunburn reaction which may range from erythema to severe skin manifestations. In a smaller proportion, photoallergic reactions have been reported. Patients should avoid direct exposure to sunlight and discontinue drug at the first evidence of skin discomfort.

Precautions and Side Effects — Overgrowth of nonsusceptible organisms may occur. Constant observation is essential. If new infections appear, appropriate measures should be taken. Use of demethylchlortetracycline during tooth development (last trimester of pregnancy, neonatal period and early childhood) may cause discoloration of the teeth (yellow-grey-brownish). This effect occurs mostly during long-term use but has also been observed in short treatment courses. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment. Side reactions include glossitis, stomatitis, proctitis, nausea, diarrhea, vaginitis and dermatitis. If adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy. Anaphylactoid reactions have been reported.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products.

Capsules: 150 mg; *Tablets:* film coated, 300 mg, 150 mg, and 75 mg of demethylchlortetracycline HCl.

LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York
419-6—4075

Lederle



For he's a jolly good fellow



But what does he think?



Many overweight patients can benefit from the appetite control provided by the sustained anorexigenic-tranquilizing action of BAMADEX SEQUELS: anorexigenic action of amphetamine; tranquilizing action of meprobamate; prolonged action through sustained release of active ingredients.

Bamadex® Sequels®

DEXTRO-AMPHETAMINE SULFATE (15 mg.) WITH MEPROBAMATE (300 mg.) SUSTAINED RELEASE CAPSULES

to help establish a new dietary pattern

Contraindications: Dextro-amphetamine sulfate: in hyperexcitability and in agitated prepsychotic states. Previous allergic or idiosyncratic reactions to meprobamate.

Precautions: Use with caution in patients hypersensitive to sympathomimetic compounds, who have coronary or cardiovascular disease, or are severely hypertensive.

Dextro-amphetamine sulfate: Excessive use by unstable individuals may result in psychological dependence.

Meprobamate: Careful supervision of dose and amounts prescribed is advised, especially for patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g. alcoholics, former addicts, and other severe psychaneuratics, has been reported to result in dependence on the drug. Where excessive dosage has continued for weeks or months, reduce dosage gradually. Sudden withdrawal may precipitate recurrence of preexisting symptoms such as anxiety, anorexia, or insomnia; or withdrawal reactions such as vomiting, ataxia, tremors, muscle twitching and, rarely, epileptiform seizures. Should meprobamate cause drowsiness or visual disturbances, reduce dosage and avoid operation of motor vehicles, machinery or other activity requiring alertness. Effects of excessive alcohol consumption may be increased by meprobamate. Appropriate caution is recommended with patients prone to excessive drinking. In patients prone to both petit and grand mal epilepsy meprobamate may precipitate grand mal attacks. Prescribe cautiously and in small quantities to patients with suicidal tendencies.

Side Effects: Overstimulation of the central nervous system, jitteriness and insomnia or drowsiness.

Dextro-amphetamine sulfate: Insamnia, excitability, and increased motor activity are common and ordinarily mild side effects. Confusion, anxiety, aggressiveness, increased libido, and hallucinations have also been observed, especially in mentally ill patients. Rebaund fatigue and depression may follow central stimulation. Other effects may include dry mouth, anorexia, nausea, vomiting, diarrhea, and increased cardiovascular reactivity.

Meprobamate: Drowsiness may accur and can be associated with ataxia; the symptom can usually be controlled by decreasing the dose, or by concomitant administration of central stimulants. Allergic or idiosyncratic reactions: maculopapular rash, acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever, transient leukopenia. A case of fatal bullous dermatitis, following administration of meprobamate and prednisolone, has been reported. Hypersensitivity has produced fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, stomatitis, proctitis (1 case), anaphylaxis, agranulocytosis and thrombocytopenic purpura, and a fatal instance of aplastic anemia, but anly when other drugs known ta elicit these conditions were given concomitantly. Fast EEG activity, usually after excessive dosage. Impairment of visual accommodation. Massive averdosage may produce drowsiness lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse.

Lederle

LEDERLE LABORATORIES
A Division of American Cyanamid Company,
Pearl River, New York

695-6

DEPRESSION



NORPRAMIN®
(desipramine hydrochloride)

ANTIDEPRESSANT FOR RAPID IMPROVEMENT

At the recommended dosage level —initially, 150 mg. per day— gratifying remission of the signs and symptoms of depression typically begins in 2-5 days. Its specificity for depression, rapidity of action and usually mild side effects are significant reasons for prescribing NORPRAMIN (desipramine hydrochloride) in depression of any type . . . any degree of severity.

A few patients, sensitive to central nervous system stimulants may become restless as depression is lifted—in such cases dosage may be reduced or a tranquilizer added.

LAKESIDE

IN BRIEF:

INDICATIONS: In depression of any kind —neurotic and psychotic depressive reactions; manic-depressive or involutional psychotic reactions.

CONTRAINDICATIONS: Glaucoma, urethral or ureteral spasm, recent myocardial infarction, severe coronary heart disease, epilepsy. Should not be given within two weeks of treatment with a monoamine oxidase inhibitor.

RELATIVE CONTRAINDICATIONS: (1) Patients with a history of paroxysmal tachycardia. (2) Patients receiving concomitant therapy with thyroid, anticholinergics or sympathomimetics may experience potentiation of effects of these drugs. (3) Safety in pregnancy has not been established.

PRECAUTIONS: (1) Outpatient use of desipramine hydrochloride should not be substituted for hospitalization when risk of suicide or homicide is considered grave. (2) If serious adverse effects occur, reduce dosage or alter treatment. (3) In patients with manic-depressive illness a hypomanic state may be induced. (4) Discontinue drug as soon as possible prior to elective surgery.

ADVERSE EFFECTS: Side effects, usually mild, may include: dry mouth, constipation, dizziness, palpitation, delayed urination, "bad taste," sensory illusion, tinnitus, anxiety, agitation and stimulation, insomnia, sweating, drowsiness, headache, orthostatic hypotension, flushing, nausea, cramps, weakness, blurred vision and mydriasis, rash, tremor, allergy, agranulocytosis, altered liver function, ataxia, and extrapyramidal signs.

DOSAGE: Optimal results are obtained at a dosage of 50 mg., t.i.d. (150 mg./day). **SUPPLIED:** NORPRAMIN (desipramine hydrochloride) tablets of 25 mg.; bottles of 50, 500 and 1000; and tablets of 50 mg., in bottles of 30, 250 and 1000.

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201

There are 59,700* undetected diabetics in Florida

Most of these are probably among patients over 40; the overweight; relatives of diabetics, and mothers of large babies. By the time polyphagia, polyuria, polydipsia, pruritus or other overt symptoms of diabetes appear, damage may have been done that could have been minimized. DEXTROSTIX® gives you a reliable blood-glucose estimate in 60 seconds.

Why Wait?



*Based on Statistical Report, U.S. Dept. Commerce, ed. 86, and Fisher, G. F., and Vavra, H. M.: Pub. Health Rep. *80*:961 (Nov.) 1965.

Note: DEXTROSTIX is not meant to replace the more precise analytical laboratory procedures such as needed in glucose tolerance testing.

AMES COMPANY, Division Miles Laboratories, Inc., Elkhart, Indiana 46514 428R67

Ames



Special Article

Back To Fee Schedules?

JACK A. MACRIS, M.D.

The Medicare law has now been in effect about eight months. In Florida, according to Blue Shield, the fiscal agent for the Medicare program, about 75% of the cases are being handled by direct billing to the patient, and about 25% of the claims are for direct assignment of benefits to the physician. The fees charges in the vast majority of cases are being honored by the Medicare program. The range of acceptable fees used as a basis of payment by the fiscal agent is not general knowledge to the practicing physician.

In a few months Title XIX of the Medicare law will be implemented in numerous states throughout the country, and a pilot program will be initiated in Hillsborough County for study by the State of Florida.

There are those among us who disagree with the action of the 1966 House of Delegates abolishing fee schedules in Florida except for existing Blue Shield Plans. It should be mentioned that the Blue Shield plans are programed under the supervision of the practicing physicians of Florida, and are subject to approval by the physician. Blue Shield, as a fiscal agent for the state Medicare program, is not subject to direction or approval by the physicians, and therein lies the chief premise by which Blue Shield plans are acceptable to the physician and the Medicare program is not. The critics of the House of Delegates' action of May 1966 would have this action rescinded, and fee schedules submitted immediately on behalf of Florida physicians. In the Medicare program this would, in effect, lend some degree of sanction of the Medicare program by the physicians and place us in a position of committing ourselves to the program. It then becomes a matter of dickering with the government as to how much we would be paid for our services.

Our present practice of preserving our contract with the patient in the large majority of cases maintains at least some degree of independence of the program, and keeps us from being directly involved in the payment schedule to the patient. If we continue our present practice of billing the patient directly and seeking payment from him, we do not become directly involved in the relationship of the government to the patient.

To be sure, cost analysis teams are already appointed to survey the Medicare program. It is essential, therefore, that the physician be fair in his charges to his patients. This would be our most vulnerable area if it could be shown that Medicare patients were being unjustly charged.

With Medicare not a year old and with a pilot program for Title XIX soon to begin, is it not wisest to wait and see what information the com-

puters will report, and determine if in fact these schedules are indicated? At the moment, to rush in and clamor for the establishment of fee schedules seems folly. We have nothing to gain and much to lose.

The instigating factor for rescinding the abolition of fee schedules is the annoying and still unsolved program of Workmen's Compensation. We are assured that if we rescind our action at the next House of Delegates meeting, we can then gain from the Industrial Commission a more favorable schedule of payment for Workmen's Compensation cases. Important as Workmen's Compensation is in Florida, it is only a part of the overall practice of medicine in the state. It does not warrant compromising our entire future practice of medicine just to solve this aggravation for the moment. The change from the Agreement and Authorization program to a fixed fee schedule is in large part the very thing which has placed us in our present predicament with the Industrial Commission.

It appears, at least for the present, that the House of Delegates' action was the wisest course in our attempt to preserve as much as possible the free enterprise system of the practice of medicine. The Medicare law was written at the request of the AMA to allow us to remain free and apart from the relationship of the government to the patient. Until it is satisfactorily demonstrated that a change is in the best interests of the practicing physician of the State of Florida, it seems wisest to pursue our present course of seeking payment from our patients as in the past, charging fair fees, and not interject ourselves into this government-patient relationship. Should future developments indicate differently, we can always re-enter the never-never land of fee schedule negotiations. Our servility to the government can be accomplished only by our willingness to have it so.

▶ Dr. MaCris, 1060 Seventh Avenue North, St. Petersburg 33701.



Vacation trip....

Motion sickness?

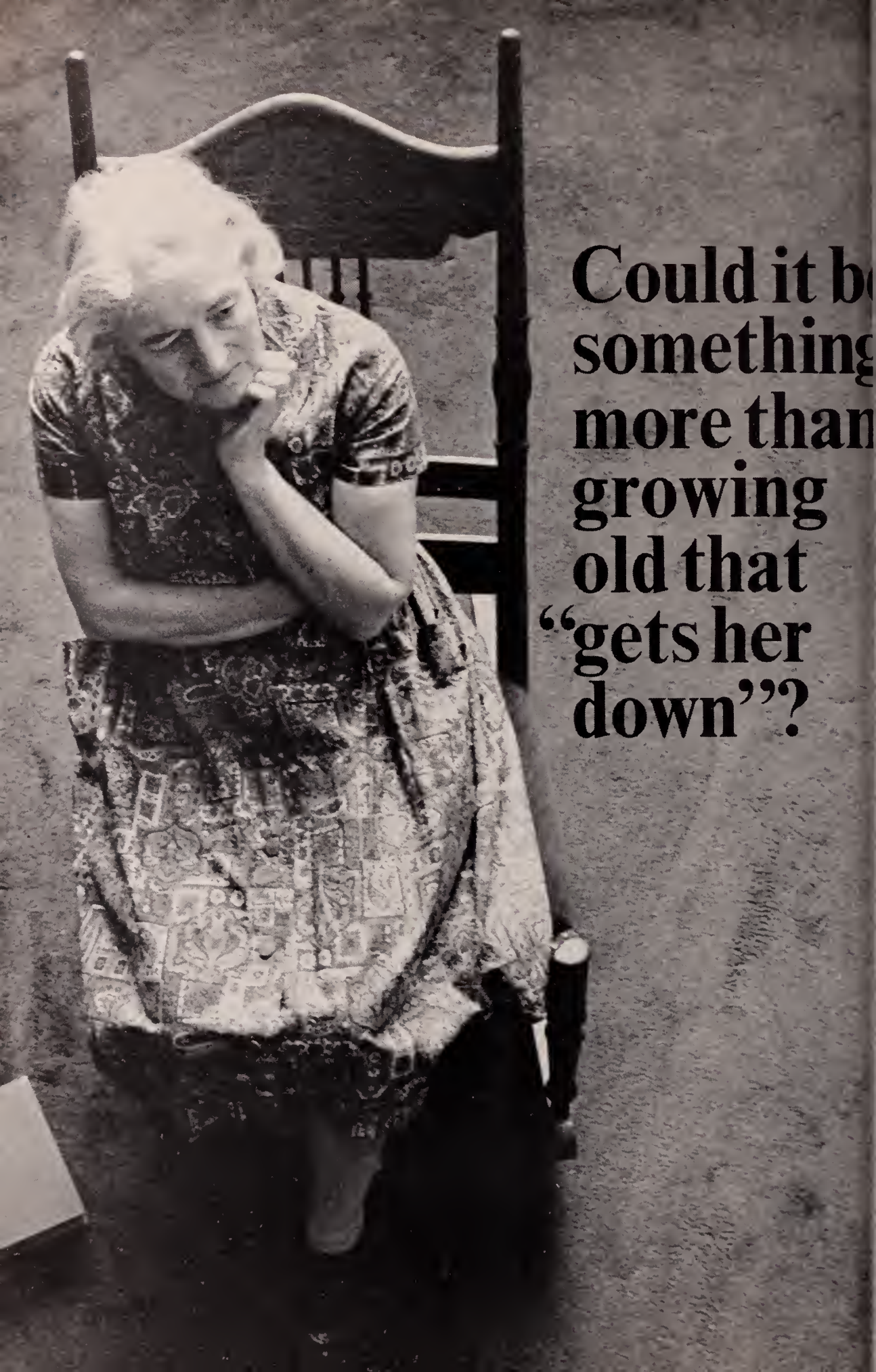


This time it'll be different. Emetrol taken before the trip begins will usually prevent nausea and vomiting. Emetrol is effective and safe...most helpful where safety is most important. It acts locally—not systemically.

ROHER WILLIAM H. RORER, INC.
Fort Washington, Pa.

Emetrol®
phosphorated carbohydrate solution
emesis control

This Emetrol advertisement will appear in the following medical journals
American Jl. of Diseases of Children
Jl. of Pediatrics
New York State Jl. of Med.
California Medicine
Illinois Med. Jl.
State Journal Group—33 Journals



Could it b
something
more than
growing
old that
"gets her
down"?

Mild mood depression, poor appetite, little interest in the present or future. Does this picture mean that she's giving in to functional fatigue?

When functional fatigue is part of her problem, Alertonic can help counteract accompanying apathy and inertia. It helps lift mood, stimulate appetite, and establish new interest in daily life.

Pleasant-tasting Alertonic combines pipradrol hydrochloride—a gentle cerebral stimulant—with an excellent vitamin and mineral formula, in a satisfying 15% alcohol vehicle.

Especially in the aging patient, nothing fosters confidence and a sense of well-being better than your own personal warmth, understanding, and encouragement. Between visits, however, your prescription for Alertonic can help keep your patient from giving in to functional fatigue.

Adequate dosage is important: Prescribe Alertonic—one tablespoonful t.i.d., 30 minutes before meals ...tastes best chilled.

And for your patient's sake, prescribe Alertonic in the convenient, economical one-pint bottle.

Available only on prescription

Alertonic®

Each 45 cc. (3 tablespoonfuls) contains: alcohol, 15%, pipradrol hydrochloride, 2 mg.; thiamine hydrochloride (vitamin B_1) (10 MDR*), 10 mg.; riboflavin (vitamin B_2) (4 MDR), 5 mg.; pyridoxine hydrochloride (vitamin B_6), 1 mg.; niacinamide (5 MDR), 50 mg.; choline,† 100 mg.; inositol,† 100 mg.; calcium glycerophosphate, 100 mg. (supplies 2% MDR for calcium and for phosphorus) and 1 mg. each of the following: cobalt (as chloride), manganese (as sulfate), magnesium (as acetate), zinc (as acetate), and molybdenum (as ammonium molybdate).

*Multiple of adult Minimum Daily Requirement supplied.
†The need for these substances in human nutrition has not been established.

Indications: 1. Functional fatigue such as that often associated with: a depressing experience or stressful time of life; advancing years; convalescence; limited activity or confinement. 2. Poor appetite and vitamin-mineral deficiency as they occur in: patients having faulty eating habits; geriatric patients who are losing interest in food; patients convalescing from debilitating illness or surgery.

Contraindications: As with other drugs with CNS stimulating action, Alertonic is contraindicated in hyperactive, agitated or severely anxious patients and in chorea or obsessive compulsive states.

Side effects: Reports of overstimulation have been rare. Patients who are known to be unduly sensitive to the effects of stimulant drugs should be observed carefully in the initial stages of treatment.

Dosage: Adults, 1 tablespoonful; children (over 15 years old), 1 to 2 teaspoonfuls; children (4 to 15 years old), 1 teaspoonful. To be taken three times daily 30 minutes before meals.

Merrell

THE WM. S. MERRELL COMPANY
Division of Richardson-Merrell Inc.
Cincinnati, Ohio 45215

7-8378



IN EMPHYSEMA

THE 'EASY-TO-TAKE' AMINOPHYLLINE

Aminophylline dura-tabs®

prolonged-medication tablets 4½ gr. (0.3 Gm.)

Precautions: Use with caution in patients with poor renal function as a decreased rate of excretion may lead to accumulation and untoward reactions. Gastric irritation may occasionally be observed in certain patients sensitive to oral aminophylline.

Dosage: Adults, 1 to 2 Aminophylline Dura-Tabs each 8 or 12 hours, with food.

RARELY UPSET THE STOMACH

Oral aminophylline needn't disturb the stomach—nor a good night's sleep. Patients breathe easier all day, sleep better all night, as each Aminophylline Dura-Tab dose provides effective therapeutic activity for up to 12 hours. And unlike conventional tablets, AMINOPHYLLINE DURA-TABS seldom cause gastric distress. The special Dura-Tab process allows the gradual absorption of the medication from the intestinal tract with only a small fraction of the dose released in the stomach.

WYNN Pharmaceuticals, Inc., Phila., Pa. 19132 · Manufacturers of QUINAGLUTE® DURA-TABS®
(Quinidine Gluconate 5 gr.)

The AMBAR SCRAPBOOK of Obesity Oddities

FACT & LEGEND

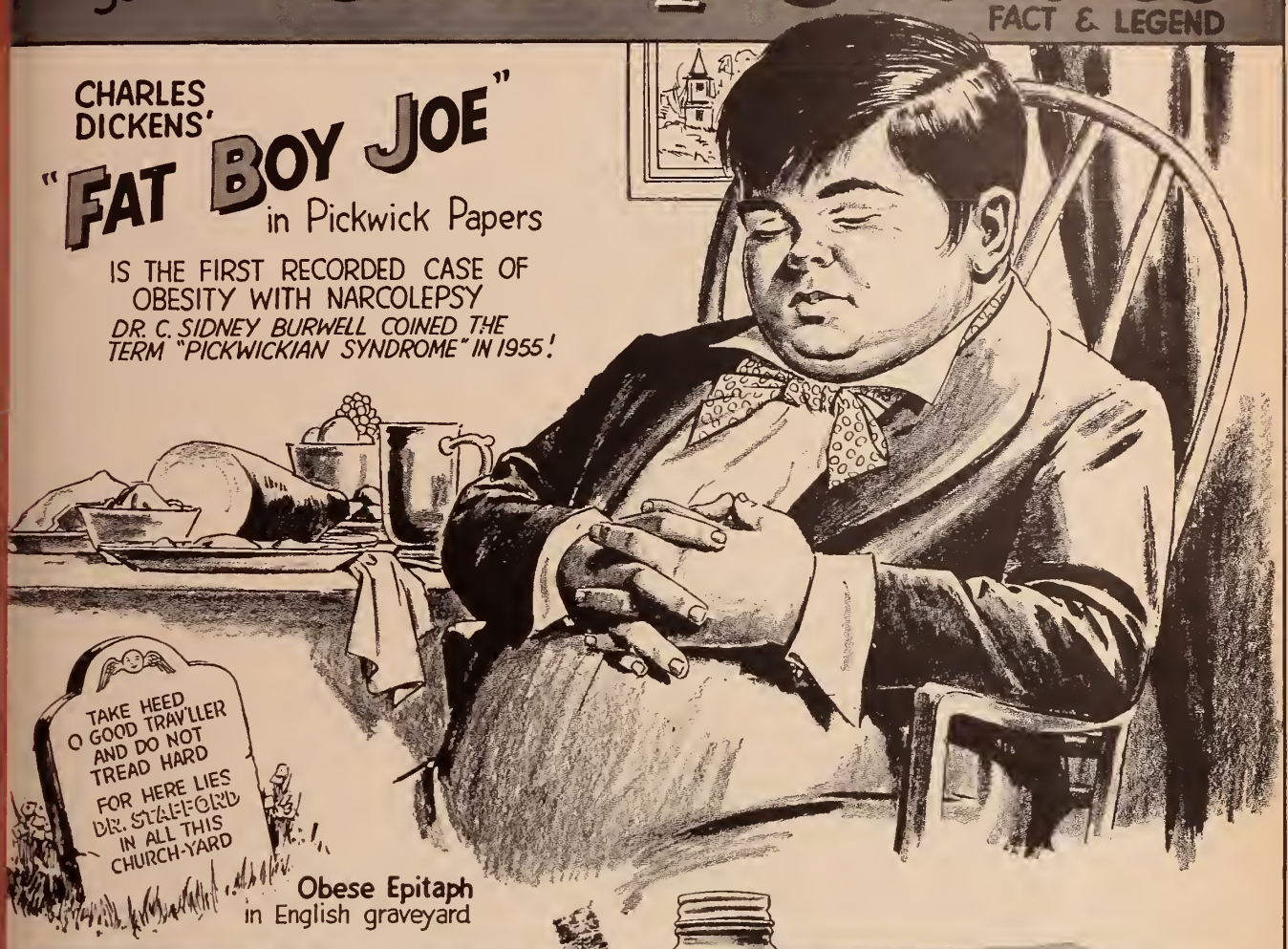
CHARLES DICKENS'

"FAT BOY JOE"

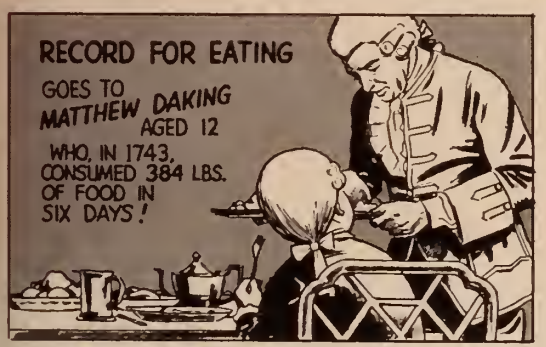
in Pickwick Papers

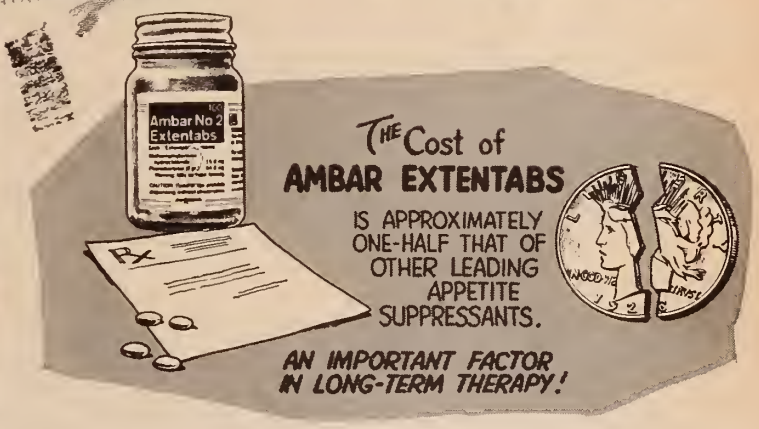
IS THE FIRST RECORDED CASE OF OBESITY WITH NARCOLEPSY

DR. C. SIDNEY BURWELL COINED THE TERM "PICKWICKIAN SYNDROME" IN 1955!



Obese Epitaph in English graveyard





CONTROL FOOD AND MOOD ALL DAY LONG WITH A SINGLE MORNING DOSE

AMBAR #2 EXTENTABS®

methamphetamine HCl 15 mg., phenobarbital 64.8 mg. (1 gr.) (Warning: may be habit forming).

One Ambar Extentab before breakfast can help control most patients' appetite for up to 12 hours. Methamphetamine, the appetite suppressant, gently elevates mood and helps overcome dieting frustrations. Phenobarbital, the sedative in Ambar, controls irritability and anxiety... helps maintain a state of mental calm and equanimity. Both work together to ease the tensions that erode the willpower during periods of dieting.

Also available: Ambar #1 Extentabs®—methamphetamine hydrochloride 10 mg., phenobarbital 64.8 mg. (1 gr.) (Warning: may be habit forming).

BRIEF SUMMARY/**Indications:** Ambar suppresses appetite and helps offset emotional reactions to dieting. **Contraindications:** Hypersensitivity to barbiturates or sympathomimetics; patients with advanced renal or hepatic disease. **Precautions:** Administer with caution in the presence of cardiovascular disease or hypertension. **Side Effects:** Nervousness or excitement occasionally noted, but usually infrequent at recommended dosages. Slight drowsiness has been reported rarely. See package insert for further details.

A. H. ROBINS COMPANY, RICHMOND, VA. 23220 A·H·ROBINS

Against these three major pathogens...



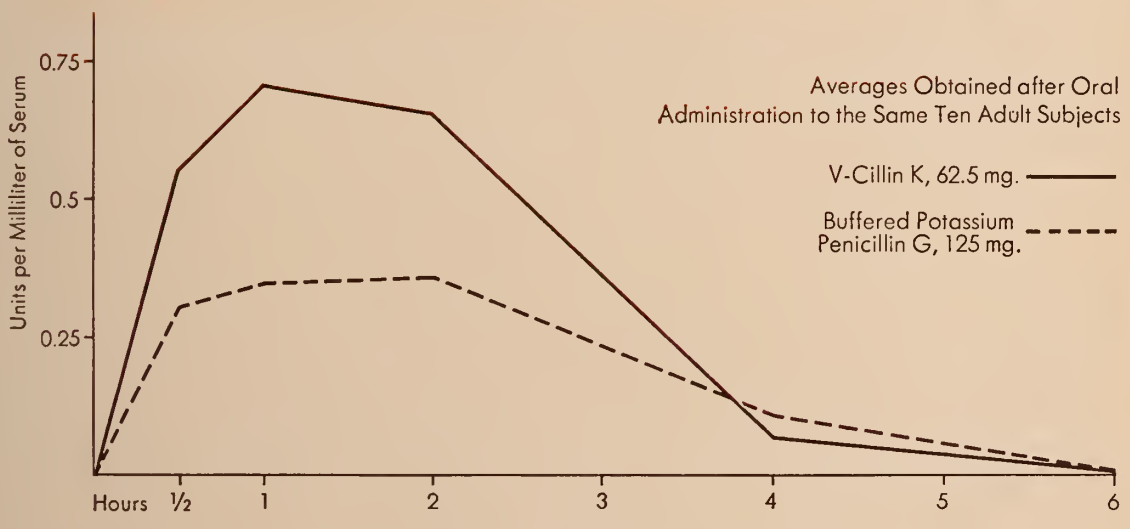
V-Cillin K® provides dependable oral antibacterial activity

because it combines a high degree of in-vitro activity...

Antibiotic	Staph. Aureus (Penicillin-Sensitive) MIC (mcg./ml.) Median	Range	Streptococcus, Group A MIC (mcg./ml.) Median	Range	Diplococcus Pneumoniae MIC (mcg./ml.) Median	Range
Penicillin V	0.02	0.02-0.04	0.02	0.003-0.4	0.01	0.005-0.2
Penicillin G	0.02	0.005-1.6	0.005	0.002-0.2	0.02	0.01-0.1
Methicillin	1.6	0.4-6.3	0.2	0.1-0.4	0.2	0.1-1.6
Oxacillin	0.4	0.1-3.1	0.04	0.02-0.4	0.1	0.04-0.8
Cloxacillin	0.2	0.2-0.8	0.1	0.1-0.8	—	—
Nafcillin	0.4	0.2-0.8	0.04	0.02-0.1	0.02	0.02-0.2
Ampicillin	0.2	0.1-0.8	0.02	0.01-0.04	0.02	0.01-0.04

Adapted from Klein, J. O., and Finland, M.: New England J. Med.,269:1019, 1963.

with high blood levels, even in the presence of food



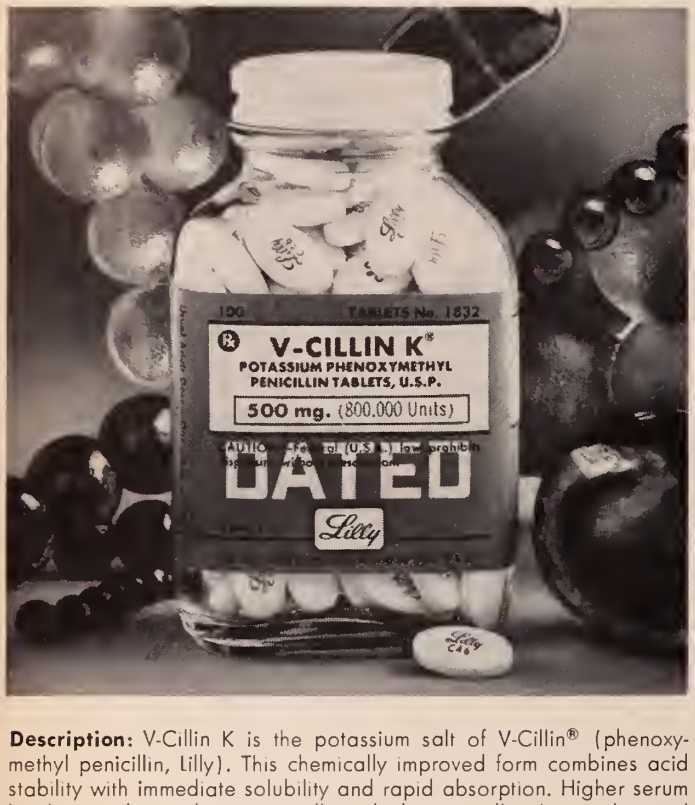
Adopted from Griffith, R. S., and Black, H. R.: Current Ther. Res., 6 253, 1964.

V-Cillin K® Lilly 700636

Potassium Phenoxymethyl Penicillin

(See next page for prescribing information

New 500 mg. tablets...a more convenient way to give high doses



Description: V-Cillin K is the potassium salt of V-Cillin® (phenoxymethyl penicillin, Lilly). This chemically improved form combines acid stability with immediate solubility and rapid absorption. Higher serum levels are obtained more rapidly with this penicillin than with equal oral doses of penicillin G. The higher serum levels and acid stability of V-Cillin K make it a more dependable penicillin for oral use.

V-Cillin K, Pediatric, is an oral solution of clinically proved V-Cillin K in teaspoon dosage form. When mixed as directed, each 5 cc. (approximately one teaspoonful) will contain 125 mg. (200,000 units) phenoxymethyl penicillin as the potassium salt.

Indications: V-Cillin K has been shown to be effective in the treatment of streptococcus, pneumococcus, and gonococcus infections as well as infections caused by sensitive strains of staphylococci. It may be used for the prophylaxis of streptococcus infections in patients with a history of rheumatic fever and for the prevention of bacterial endocarditis after tonsillectomy and tooth extraction in those patients with a history of rheumatic fever or congenital heart disease.

Contraindication: V-Cillin K should not be administered to a patient with a history of penicillin hypersensitivity.

Warnings: In rare instances, the use of penicillin may cause acute anaphylaxis which may prove fatal unless promptly controlled. This type of reaction appears more frequently in patients with a history of sensitivity reactions to penicillin and in those with bronchial asthma or other allergies. Resuscitative drugs should be readily available for emergency administration. These include epinephrine and pressor drugs (as well as oxygen for inhalation) for relief of immediate allergic manifestations and antihistamines and corticosteroids for delayed effects.

Precautions: V-Cillin K should be used cautiously, if at all, in a patient with a strongly positive history of allergy.

In prolonged therapy with penicillin, and particularly with h parenteral dosage schedules, frequent evaluation of the renal hematopoietic systems is recommended.

In suspected staphylococcus infections, proper laboratory stuc (including sensitivity tests) should be performed.

The use of penicillin may be associated with the overgrowth pencillin-insensitive organisms. In such cases, its administration sho be discontinued, and appropriate measures should be taken.

Adverse Reactions: Although serious allergic reactions are much l common with administration of oral penicillin than with intramuscu forms, manifestations of penicillin allergy may occur.

Penicillin is a substance of low toxicity, but it does possess a sig cant index of sensitization. The following hypersensitivity reacti associated with the use of penicillin have been reported. skin rasl ranging from maculopapular eruptions to exfoliative dermatitis, u caria; and reactions resembling serum sickness, including chills, fe edema, arthralgia, and prostration. Severe and often fatal anaphylc has occurred (see Warnings). Hemolytic anemia, leukopenia, thr bocytopenia, and nephropathy are rarely observed side-effects c are usually associated with high parenteral dosage.

Administration and Dosage: For Tablets V-Cillin K and for V-Cillin Pediatric, the usual dosage ranges from 125 mg. (200,000 units) thi times a day to 500 mg. (800,000 units) every four hours. For infar the daily dosage may be 50 mg. per Kg. of body weight divided i three doses.

Beta-hemolytic streptococcus infections without associated b teremia may be treated with 200,000 to 400,0000 units three time day. Therapy should be continued for a minimum of ten days to prev development of rheumatic fever and/or other serious complicatio Dosage for routine streptococcus prophylaxis in patients with a hist of rheumatic fever or congenital heart disease may be 200,000 ur once or twice daily. When such patients undergo tonsillectomy, toc extraction, or other minor surgery, the prophylactic dose should 500,000 units every six hours given two days prior to surgery and two days postoperatively. If oral medication is not feasible on the d of surgery, parenteral therapy should be considered. Mild to mod ately severe pneumococcus pneumonia has been treated effectiv with 250 mg. every six hours.

In staphylococcus infections, 400,000 units or more should be giv every six to eight hours in conjunction with indicated surgical pra dures.

For gonorrhea in males, 500 mg. (800,000 units) every four hours three doses may be employed, in females, 500 mg. every four hou for six doses are recommended. Refractory infections generally respo to a second treatment three to four days following completion af t first. Treatment of gonorrhea with severe complications should individualized, with prolonged and intensive treatment. Patients with suspected lesion of syphilis should have a dark-field examination b fore receiving penicillin and monthly serologic tests for a minimum three months.

How Supplied: Tablets V-Cillin K, U.S.P., 125 mg. (200,000 units), bottles of 50 and 100, and 250 mg. (400,0000 units) and 500 m (800,000 units), in bottles of 24 and 100.

V-Cillin K, Pediatric, for Oral Solution, 125 mg. (200,000 units) p 5 cc. of solution, in 40, 80, and 150-cc.-size packages. [0320

Additional information available to physicians upon request. Eli Lilly and Company, Indianapolis, Indiana 46206.

Lilly

700



Others Are Saying

Combinations of Medical Men

Even the worm will turn against the heel that crushes it, and even medical men are beginning to demand some just recognition. The recent attempt in Arkansas by the medical men of a small community to protect themselves from imposition by notifying each other of the individuals who made unremunerative patients is an index of the feeling which is beginning to pervade the profession, and the action of the citizens of that community in organizing to boycott these physicians for doing that which every merchant does when he becomes a subscriber to a commercial agency, shows only too clearly how like slaves the profession is regarded by a certain portion of the community.

Certainly it is true that the profession as a whole is punctiliously mindful of the dictates of humanity. So true is this that a single slip in this direction by a physician, even if his action be within the bounds of strict right and justice, at once calls for loud complaints from the laity. The community has grown to judge us by altogether different standards from those which it employs in its judgment of others. When the physicians of Findlay, O., during an epidemic raised their fees from the modest sum of one dollar a visit to the still modest and inadequate sum of one dollar and a half a visit, the whole country was notified of their barbarity, by the inconsistent people of that town, who but a few short months before had flocked there for purposes of speculation, and who had held farms and "town" lots at enormous figures because they could, and who had not hesitated to receive such sums for their land as the "gas boom" brought on, and who took particular pains to close out their deals before the drop came. A recent attempt by the physicians of South Chicago to form a protective association, led an attorney to announce the remarkable doctrine that physicians being licensed by the state could not withhold their services when demand for them was made.

It is this same spirit which prevents the profession as a whole from exercising that influence in the community which its knowledge, training and culture should demand. The animus which prevents legislation protecting physicians from unjust suits for alleged malpractice is largely dependent upon this same condition of affairs.

It is idle to say that the profession receives its dues. Its methods are so out of harmony with the active commercial spirit of the age that it cannot be understood. No better evidence of this is needed than the persistent misinterpretation of its motives by the daily press on matters relating to

removes the mental blur

that clouds vision

SOLFOTON®

Each tablet or capsule contains
PHENOBARBITAL.....16 mg.
(Warning: may be habit forming)
BENSULFOID® (See P D R).....65 mg.
Precaution: same as 16 mg. of phenobarbital



Constructive Therapy

A Solfoton tablet or capsule at 6 hour intervals maintains sedation at the threshold of calmness, sustaining a mental climate for purposeful living.

Literature and clinical samples sent upon request.

FEDERAL LAW PROHIBITS DISPENSING WITHOUT PRESCRIPTION

AVAILABLE

Solfoton *(yellow, uncoated tablets "P")*
100s, 500s, 5000s
Solfoton Capsules *(yellow and brown)*
100s, 500s, 1000s
Solfoton S/C *(sugar-coated beige tablets)*
100s, 500s, 4000s

WM. P. POYTHRESS & CO., INC.
RICHMOND, VIRGINIA 23217
Manufacturers of ethical pharmaceuticals since 1856

quackery. As to its *personnel,* it is relatively superior today, but does not receive the attention given the pompous doctor of "ye olden time."

To overcome the difficulties, it is necessary to secure the intelligent respect of the community. Increase of scientific knowledge cuts no figure in such a programme. Science is advancing by giant strides, but these strides can not be appreciated by those who can not understand them in detail. The means to secure respect must be such as universally command respect today; and here we must take a lesson from our commercial brethren. An able financier has said that the keynote to modern success is "combination." The immense power of the great moneyed corporations is not due solely to their financial soundness, but partly also to the great number of individuals interested in them. The success of the great "trusts" proves the value of combination. The so-called "labor element" has found the value of combination.

In Great Britain and Ireland the physicians have combined in the great British Medical Association. The weekly issue of its journal now exceeds 17,500. This combination is not as well organized as it should be, and will be in the future, nevertheless its influence is great, and its will, as expressed by its powerful journal, has during the past year secured at least two great reforms; the one was the frustration of the intention of the Government to abolish the class of factory surgeons, and the other was the practical and successful enforcement of the claims of the army surgeons to improvement in title, rank, and sick leave. It has now undertaken the redressal of the wrongs of the Irish dispensary doctors.

The American profession has in the American Medical Association an organization which can accomplish as much for them, if they will support it. But instead of a membership of 6,000, it should have a membership of 60,000. With such a combination, the American profession would command respect, and carry conviction by its very weight. It is not to be supposed that such an organization would please everybody. Perhaps in its details it would please nobody. But in general its influence would be for the benefit of all, on broad lines.

Here is the opportunity before the profession. Will it take advantage of it?

Reprinted in the Dec. 26, 1966 issue of the Journal of the American Medical Association from the Dec. 26, 1891 JAMA.

The Unhappy Doctor

Recently a colleague's son who had just returned from college informed his father that he was changing his course of study to engineering. His reason was that engineers all seemed to be so happy with their work and with their confreres. In the same breath, he admonished his father because of the atmosphere of unhappiness that surrounded his remembrance of the medical profession including his father, his grandfather and their medical associates. It had been his feeling that when the doctors began discussing their patients or their problems, they always seemed very unhappy.

His analysis is probably true. I believe that it is almost essential that a good doctor BE unhappy. His life is like a circus, with him balancing on his head the problems, the frustrations and the ignorance of sickness. He is continually walking a tight rope trying to balance the load of his working day to set a just tempo between time with his patients and the economics of medical practice. The physician must have concern and must be aware of the seriousness of his work, and of the problems that always will be confronting him. You cannot separate professional happiness from professional peace of mind. The simplicity of life that brings peace of mind is not sufficient to satisfy the present day patient. Thus, freedom from frustration, problems and professional insecurity, even for a day, is foreign to most doctors. I would conclude that to be a good and effective physician, the doctor *must* be unhappy.

RUSSELL L. WELSH, M.D.

Reprinted from The Stethoscope, Volusia County Medical Society Bulletin, January 1967.

mudrane®

for

- EMPHYSEMA
- ASTHMA
- CHRONIC BRONCHITIS
- BRONCHIECTASIS

The fast-disintegrating uncoated tablet gives relief in 15 minutes

Each tablet contains:

Potassium Iodide	195 mg.
Aminophylline	130 mg.
Phenobarbital, Caution: May be habit forming...	21 mg.
Ephedrine HCl	16 mg.

FEDERAL LAW PROHIBITS
DISPENSING WITHOUT PRESCRIPTION

Precautions: Usual for aminophylline-ephedrine-phenobarbital. Iodides may cause nausea, long use may cause goiter. Discontinue if symptoms of iodism develop.

Iodide contraindications: tuberculosis, pregnancy.

DOSAGE

One tablet, with full glass of water, 3 or 4 times daily.

Dispensed in bottles of 100 and 1000 tablets.

MUDRANE GG—Formula, dosage and package identical to Mudrane—*except*—100 mg. glyceryl guaiacolate replaces the potassium iodide. The value of Mudrane cannot be enjoyed by a small group in which K.I. is contraindicated. Mudrane GG is prepared for this group.

MUDRANE GG ELIXIR—Four 5 cc teaspoonfuls is equivalent to one Mudrane GG tablet. Dosage adjusted to age and weight of child. Mudrane GG Elixir is for pediatric patients and those who think they cannot swallow tablets. Dispensed in pint and half gallon bottles.

WM. P. POYTHRESS & CO., INC.
RICHMOND, VIRGINIA 23217
Manufacturers of ethical pharmaceuticals since 1856

INFLAMMATION:
A cellular fight for life

A SYNTEX REPORT based on recently developed hypotheses about topical corticosteroids, including the cellular theories of inflammation by Thomas F. Dougherty, Ph.D., University of Utah.

You are looking at a fibroblast fighting for life. This cell—one of the most common found in connective tissue—has literally been poisoned by cytotoxins released from other cells that have ruptured. Soon, if the abnormal activity of this fibroblast does not cease, it, too, will rupture and die—one more casualty in the inflammatory wave of destruction precipitated by injury.

Until a short time ago no one had ever witnessed such a scene at the cellular level. Now, through advanced cinemicrographic techniques, it is possible to view and photograph the inflammatory process as produced experimentally in living animal tissue. This method permits new insight into the mechanism of inflammation and the role of corticosteroids in therapeutic management. Equally important, these techniques shed new light on factors that may make one corticosteroid more effective than another—factors that can be correlated with other chemical, biologic, and clinical parameters.

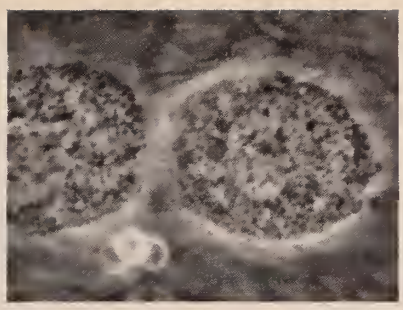


Visual evidence of how corticosteroids influence the inflammatory reaction

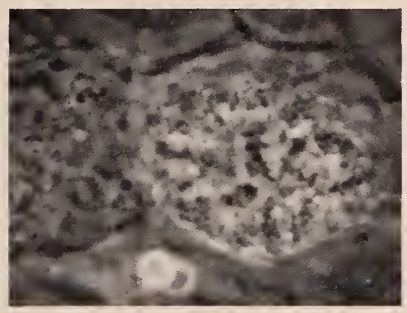
Working with phase-contrast cinemicrography on living animal tissue, Doctors Thomas F. Dougherty and David Berliner of the University of Utah College of Medicine have actually filmed cellular events that occur during the inflammatory reaction. This remarkable study* and additional work by these investigators, as well as by others, have established a new theoretical biologic basis for the antiinflammatory effect of the corticosteroids. (It must be noted that other theories, such as the lysosome or so-called "suicide bag" theory, have been postulated, although it is quite likely that there are more similarities than differences among the various theoretical models.)

The inflammatory wave of destruction

In this investigation an injurious injection of gelatin is used to set off an inflammatory reaction in living mouse tissue. What follows is a wave of destructive cellular activity that comprises the inflammatory response to injury. Mast cells (which contain heparin, serotonin and histamine) take up water, swell and rupture, releasing their contents, which are toxic outside the mast cell wall. These toxins, in turn, cause disintegration of other cells (such as fibroblasts) and the release of additional toxic material. Capillaries, too, take up water and leak unformed blood elements, causing edema. And polymorphonuclears, lymphocytes and perithelial cells invade the inflamed site. As a result of all these changes, the cellular environment reaches a state of turmoil.



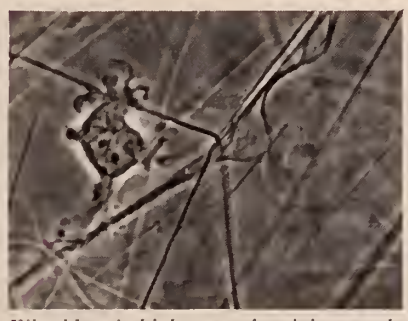
Phase-contrast microscopy showing mast cell before injury.



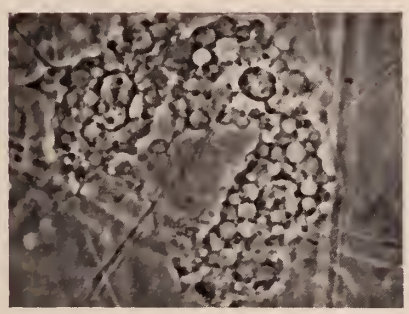
Mast cell (after injury) has broken up and released cytotoxins.

How corticosteroids change the picture

Corticosteroids appear to virtually stop the abnormal cellular activity that constitutes the inflammatory reaction. This permits the body's natural resources to clear up the inflamed area and repair the damaged tissue. This interpretation is supported by the fact that when the injurious gelatin solution is injected simultaneously with a corticosteroid —Synalar (fluocinolone acetonide)— the inflammatory pattern simply does not develop.



Fibroblast in high state of activity, much distorted.



Mast cells showing effects of corticosteroid action: cells are normal in size, shape and activity.



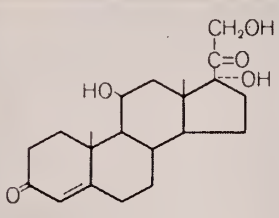
In summarizing his study Doctor Dougherty states: "...we also feel this work may explain why one corticosteroid helps a patient more rapidly and effectively than another. If it does, it is because one corticosteroid is the fastest, most effective inhibitor of the series of inflammatory events at the tissue level."

*A New View of Corticosteroid Action in Inflammatory Dermatoses, a film based on this study, is now available from your Syntex representative.

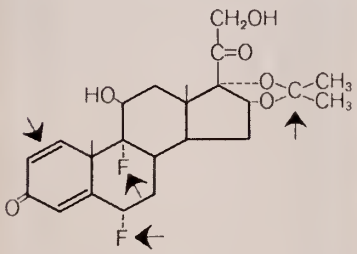
See last page for contraindications, precautions, side effects and dosage.

How advances in chemical design have achieved greater steroid potency

The chemical modification of corticosteroid molecules from the advent of hydrocortisone to the development of Synalar (fluocinolone acetonide) is a prime example of how biochemists can "design" to increase therapeutic activity and minimize undesirable side actions. Below, for example, we see the important changes that were made in reference to the hydrocortisone molecule to produce fluocinolone acetonide, one of the most active of all topical corticosteroids. As a result, a 0.01% preparation of Synalar (fluocinolone acetonide) has been reported to do the work of a 1% hydrocortisone product containing 100 times more cortiscosteroid. And it can often do it more effectively.



Hydrocortisone

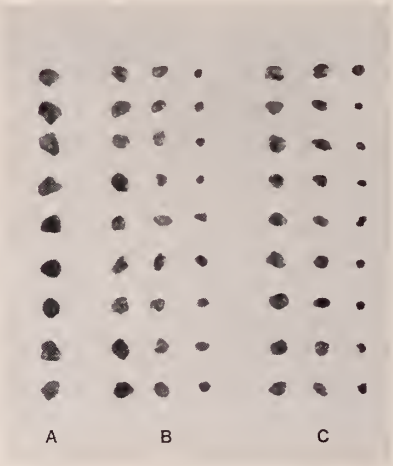


Fluocinolone Acetonide (Synalar)

- *a double bond between carbons 1 and 2*
- *fluorine substitutions at* both *the 6-α, and the 9-α positions*
- *the addition of the acetonide at the 16-α, 17-α positions, thus providing one of the most potent topical corticosteroids available.*

How bioassay tests are used to "predict" therapeutic potential

Biologic assays are another tool used by researchers to help establish the relative activity of corticosteroids. To date no single method of assaying corticosteroid activity has emerged as the ideal "yardstick" for predicting therapeutic potential. Taken together, however, these methods have proved useful. When such tests are run on various corticosteroids, a definite order of corticosteroid activity becomes evident. Compounds with the highest order of activity may be expected to merit clinical trial to establish their high therapeutic potential. When assayed by these methods, fluocinolone acetonide (Synalar) emerges as one of the most active topical corticosteroids, milligram for milligram, available for clinical application today.



THE THYMUS INVOLUTION ASSAY[1-4] is run on adrenalectomized rats. The sizes of the glands are measured, and the degree of involution caused by the steroid is determined as an indication of its potency. In the above photo, the comparative involution of thymus glands achieved with hydrocortisone and Synalar (fluocinolone acetonide) is shown. Untreated controls (A) show normal size. Group B—injected with 1, 2 and 4 mg. of hydrocortisone—show progressively smaller thymuses as does Group C—injected with fluocinolone acetonide—but with only 1/500th the dose of hydrocortisone.



THE ANTIGRANULOMA ASSAY[1-4] also utilizes adrenalectomized rats. Granulomas are induced by subcutaneous implantation of cotton pellets on either side of the thorax. The degree of granuloma inhibition achieved by a steroid reflects its potency. The above photo shows the inhibition of granuloma formation achieved with hydrocortisone and Synalar (fluocinolone acetonide). Untreated controls (A) show large, red granulomas adhering to the pellets. Group B, receiving hydrocortisone and Group C, receiving fluocinolone acetonide, show little, if any, granuloma formation. Fluocinolone acetonide produced the same effect as hydrocortisone with only 1/500th the dose. This assay, as well as the thymus involution assay, measures systemic rather than topical corticosteroid activity. Nevertheless, results by these methods correlate well with other assays and with the milligram potencies of topical steroids in current clinical use.

Worldwide clinical experience confirms the predictable therapeutic potential of Synalar

It is particularly gratifying that the promise of the advanced chemical design and high order of bioassay activity of Synalar (fluocinolone acetonide) has been confirmed by widespread therapeutic application. Indeed, the impressive clinical response rate of Synalar has been documented in no fewer than 232 papers from 22 countries.

Representative Clinical Results with Synalar*

Efficacy Documented in over 4,000 Patients

Condition	Number of Publications	Number of Patients	Significant Improvement†
Contact Dermatitis	27	750	713
Eczematous Dermatitis	21	472	409
Seborrheic Dermatitis	18	442	426
Atopic Dermatitis	24	460	426
Psoriasis	36	1,699	1,510
Neurodermatitis	18	351	324
Total	144	4,174	3,808

*Complete bibliography on request.

†Expressed by the authors as excellent, very good, good, complete remission of inflammation, etc.

PRESCRIBING INFORMATION

For initiation of therapy: Cream 0.025%, 5 and 15 Gm. tubes, 425 Gm. jars; *for emollient effect:* Ointment 0.025%, 15 Gm. tubes; *for maintenance therapy:* Cream 0.01%, 15 and 45 Gm. tubes, 120 Gm. jars; *for intertriginous or hairy sites:* Solution 0.01%, 20 cc. and 60 cc. plastic squeeze bottles; *for infected inflammatory dermatoses:* Neo-Synalar® Cream (0.025% fluocinolone acetonide, neomycin sulfate, equivalent to 0.35% neomycin base), 5 and 15 Gm. tubes. CONTRAINDICATIONS: Tuberculous, fungal, and most viral lesions of the skin, (including herpes simplex, vaccinia, and varicella). Not for ophthalmic use. Contraindicated in individuals with a history of hypersensitivity to any of the components. PRECAUTIONS: Synalar preparations are virtually nonsensitizing and nonirritating. However, the solution may produce burning or stinging when applied to denuded or fissured areas. In some patients with dry lesions, the solution may increase dryness, scaling or itching. While topical steroids have not been reported to have an adverse effect on pregnancy, the safety of their use on pregnant females has not absolutely been established. Therefore, they should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time. Prolonged use of any antibiotic may result in overgrowth of nonsusceptible organisms; if this occurs, appropriate therapy should be instituted. When severe local infection or systemic infection exists, the use of systemic antibiotics should be considered, based on susceptibility testing. SIDE EFFECTS: Side effects are not ordinarily encountered with topically applied corticosteroids. As with all drugs, however, a few patients may react unfavorably to Synalar under certain conditions. The neomycin in Neo-Synalar Cream rarely produces allergic reactions.

REFERENCES: 1. Lerner, L. J., Bianchi, A., Turkheimer, A. R., Singer, F. M., and Borman, A.: Anti-inflammatory steroids: potency, duration and modification of activities. Ann NY Acad Sci 116:1071 (Aug. 27) 1964. 2. Idem: Comparison of anti-granuloma, thymolytic and glucocorticoid activities of anti-inflammatory steroids. Proc Soc Exp Biol Med 116:385 (June) 1964. 3. Ringler, A.: Activities of adrenocorticosteroids in experimental animals and man, in Dorfman, R. I.: Methods of hormone research, New York, Academic Press, 1964. vol. III. pp. 234-280. 4. Gubersky, V. R.: To be published.

fluocinolone acetonide — an original steroid from

SYNTEX LABORATORIES INC., PALO ALTO, CALIF.

For inflammatory dermatoses... by any measure a topical corticosteroid of choice

Synalar® (fluocinolone acetonide)

Milligram for milligram one of the most active topical corticosteroids available

Rapid and predictable in antiinflammatory and antipruritic activity

Results often comparable to those of systemic corticosteroids with fewer hazards

Special Article



Problems in Medical Education in Florida

MAX MICHAEL JR., M.D.

A discussion of problems of medical education in Florida should reckon with two facts: (1) The problems that one might encounter are similar to those in other parts of the country and much can be learned from a study of attempts of others at solutions. (2) Much thought and planning have been given to the relationships between medical schools and community hospitals as attested by the Millis Report, The Coggeshall Report and by Public Law 89-239, which established Regional Medical Programs. The implementation of the recommendations in these three documents presages a complete overhaul in medical education and in particular medical education in community hospitals as we know it today.

In this presentation I will touch on two broad areas—the community hospitals and their staffs, and the medical schools.

Hospitals

Hospitals exist primarily to give service to the sick; major conflicts often arise when education competes with service for funds for space and, indeed, for attention. As was pointed out in the Millis Report, graduate medical education is unique in that it relies upon an institution where service is the keynote for its educational experience, and I insist that Florida is no different from the other states in this respect. There is an unfortunate, but an almost traditional, hostility between medical staffs and hospital administrations. I have studied educational programs in many community and university hospitals throughout the country and such is widespread, if not universal. It is unfortunate, for both groups are interdependent. Better communications leading to a mutual understanding of problems would be most healthy particularly in the realm of education.

The staffs are the faculties of the community hospitals. In general, this is a devoted group of private practitioners who give of their costly time to further educational programs. Motivation is of interest. There are those who do their teaching for the rewards of having house officers care for their patients; others do it for an assignment of beds and still others for the flattery to their ego. The most successful teachers in this, as in any other setting, however, are those who teach for the joy of learning that comes from teaching. A problem often noted in community hospitals is the closed mind that many an attending physician has towards teaching. He views the house officer as an apprentice who learns only what the teacher

From the Jacksonville Hospitals Educational Program and the Department of Medicine, University of Florida College of Medicine.

Presented before a joint meeting of the FMA Council on Medical Education and Hospitals, the directors of medical education of hospitals of the state and representatives of the University of Miami School of Medicine and the University of Florida College of Medicine, Orlando, Dec. 11, 1966.

knows and is often unwilling to see the house officer surpass him. In an anachronistic fashion he recalls the days "when I was an intern." Times have changed the content and method of teaching and all concerned with medical teaching must keep abreast of the trends.

One of the major changes is the increasing development of full time staffs in those community hospitals that wish to be active in fields of education. These men will be the nucleus for the local faculty. They will set standards, will bring the local faculty abreast of the trends in teaching and will explore new ways to improve the total educational picture. Another change to be anticipated is the abandonment of the internship as we know it. This has been predicted; the Millis Report details the reasons. The medical schools can be of inestimable value in the planning for these and other changes, which may indeed be painful.

Many of the hospitals in Florida do not have a full quota of house officers or, indeed, have none. Often the complement consists of a limited number of foreign graduates. One can ask pointedly whether it is wise to continue these latter programs which are expensive and often unproductive educationally. And what are the alternatives for these hospitals whose staffs are not able either because of lack of time or lack of ability to operate excellent but expensive graduate programs? What of the service functions that the house staff performs? Surely it is no disgrace to work in a hospital without a house staff. A partial answer is the development of the new type of health personnel as is happening in many places—the infusion team, operating room technician and medical historian, to name a few. Well designed plans for emergency room staffing are being tested in many locales. The lack of a house staff, however, removes one of the most potent sources of continuing education. The staffs in such hospitals can and should institute more stringent mechanisms for quality control—for self evaluation and for self education. Well functioning and potent audit committees, tissue committees, utilization committees and staff conferences are a few methods. The medical schools should work even harder in the field of continuing education in such institutions.

Medical Schools

There is a tendency to attribute most, if not all, problems in medical education in community hospitals to our medical schools. This accusation is felt most when consideration is given to the recruitment of house staffs. I am certain that many who have been involved with educational programs in the community hospitals thought that when the two medical schools were established, and in particular the one at the University of Florida, they would literally inundate the hospitals in the state with interns and residents. When such did not transpire, hostilities were intensified and accusations were hurled and, indeed, they continue. In this area, perhaps Florida is a bit unique from many states, for when we consider that our two schools are among the youngest in the nation, certain of the problems of recruiting from our two schools can be readily understood if approached with an open mind. I do not intend these remarks as apologies for the medical schools; I intend them to be objective and hopefully constructive.

When a new medical school is opened, it is essential that the rest of the country knows what it has and what it can produce. In other words, the school is struggling for its place in the sun. The ways that this can be done are threefold. First, the products of research can be publicized by presentation of results at national meetings and publication in appropriate journals. Second, there is patient care. When highly skilled procedures are developed in a university hospital or when there are staff physicians who are particularly expert in certain fields, it is natural that patients will be attracted from the surrounding areas. This too strengthens the standing of the medical school in the light of the medical community throughout the country. Third, the school can exhibit, if you will, to the rest of the country how effective its teaching program is. There is no better way to do this than having its product, the medical student, disseminate throughout the country for internships and residencies. This lets others have a first hand look at the product being turned out. There is little to argue with the first two items, but it is the last that causes the most friction.

It is frequently stated that the students of our local medical schools who are seeking internships are encouraged to continue their education in

university hospitals, be it their own or others, and are discouraged from coming to the community hospitals. I can assure you that this is not unique in Florida for I have heard this complaint voiced in many areas throughout the United States. The discrepancy between the number of graduates and the number of available positions for interns and residents is well known. Raising salaries, giving memberships to country clubs is not what attracts interns and residents in most instances; however, an adequate living wage, adequate housing and pleasant surroundings are certainly conducive to learning. A solid teaching program is what is needed and wanted, for graduate education is not apprenticeship—it is a part of a total educational experience. A simple bit of mathematics will show that if every single graduate of our two medical schools interned in the state of Florida, there would still be many vacant positions. There are 293 positions for interns in Florida and 130 graduates. Furthermore, there are 746 openings for residents to be filled from internships.

Why do those responsible for advising senior medical students discourage them from seeking internships in community hospitals? Again I do not refer specifically to the state of Florida. This is another example of where the thought of "when I was a resident" must be abandoned. I like to cite the example of the situation at Emory. In 1942, when the first full time chairman of the Department of Medicine arrived, the late Dr. Russell Oppenheimer was dean, professor of medicine and the only full time man in the clinical department throughout the entire medical school. Today in the Department of Medicine alone there are nearly 80 full time physicians, and the same is the situation throughout the country.

Much criticism has been leveled at the tremendous number of full time staff physicians in medical school hospitals. Much of this we know is brought about by the research funds currently available. The statement that research men are being turned out rather than practicing physicians might indeed be justified under certain circumstances. This is one of the facts of life that exists; this is the setting in which the medical student receives his training. This is the depth to which he is accustomed. Thus, the medical student of today is in a setting entirely alien to what many of us of an earlier vintage knew. He is surrounded by a depth of full time faculties of experts in the various fields of medicine. The question is often asked by the prospective intern or resident, "How many full time staff physicians do you have?" Medical schools have often been chastised for abandoning their graduate as soon as he receives his diploma. Thus, in the attempt to see that the potential intern has the best possible training suitable for him is the medical school to be condemned?

But what about the other side of the coin? Are there things in the community hospitals which will contribute significantly to the education of the young graduate? I would be one of the first to say that there are potentially good educational features in the community hospitals that are lacking in the university hospitals. The house officer becomes acquainted with a different type of patient. He begins to see the problems in the management of a patient who is not only private, but who is personal to his physician; he is exposed to the many nuances of private practice and some of the practicalities of the care of patients. He learns a more pragmatic approach to patients. Furthermore, he can work with men of diverse medical backgrounds.

If we are agreed that there are features in both the university hospitals and in the community hospitals that will contribute to a well rounded physician, let us begin to try to pull some of these together into a unified whole. The medical schools say that they will not send their students to non-university hospitals because they do not come up to their standards. Then let us begin to make concrete plans to rectify these ills. Several possibilities suggest themselves. It is true that medical schools, and those in our state again are no exception, are definitely becoming more concerned with the education of the young graduate that goes out into the community hospitals, and indeed, with the total educational programs of the community hospitals. The medical schools are assuming a larger role out from the Ivory Tower. The dean of the Harvard Medical School, Dr. Robert Ebert, has stated that this is one of the changes that will take place in the curriculum and in the philosophy of that school.

There are several models whereby university centers have developed formal arrangements with community hospitals for the purpose of aiding their educational activities. Such arrangements

have the potential for bilateral gain, but unfortunately misunderstandings often arise. Some of these plans have been successful, others have been rather dreary failures. In essence, they seek a regionalization that potentially can be quite healthy. The better known of these are the Bingham Associates, the NYU plan, the Albany Regional Program and the Massachusetts General Hospital Surgical Plan. The Indiana program is to be watched with interest. We can and should profit from the contributions and from the errors of these. To be more specific, I would suggest the following: For those hospitals in this state that have intern and/or residency programs, our medical schools would have available consultants to inspect closely the educational programs and point out the deficits whereby the standards the schools desire for their students are not met. Then concrete suggestions could be given for improvement. Not only will these improvements better intern and residency programs, but they will obviously spill over into continuing education. I find it hard to separate the two, particularly in the community hospitals. Similarly, in those hospitals without house officers, our consultants could help with matters of quality control. Such moves would be in the spirit of the recommendations given in the Millis Report.

We must be willing to take a hard critical look at all of our training programs, university and non-university, and by cooperative endeavors try to find what can be done to improve the educational contents. In some areas perhaps we look for exchange of residents, in others the exchange of faculties, but certainly the exchange of ideas. Indeed, the day has come when the medical school faculty can no longer live in the Ivory Tower but must go out into the community areas to help improve graduate and postgraduate education and hence ultimately patient care. If those in the medical schools must come out of their Ivory Towers, then by the same token those in community hospitals must come out of theirs. The Ivory Tower of suspicion found in many community hospitals has also been a detriment to cooperative endeavors between community hospitals and university medical centers. I believe definite progress can be made. It would be fruitless to get into the polemics as to whether a state school has an obligation to its state or whether a physician practicing in one state is the responsibility of the school from whence he graduated. Any plans for cooperative endeavors must be venturesome yet carefully planned. Precipitous actions are to be avoided. Results cannot be anticipated over night and all must be patient.

Regional Medical Programs

This brings me to the last, and a glaring example of what is wrong in medical education in the state of Florida. This concerns the problems that have arisen with planning for the Regional Medical Programs. There have been accusations of footdragging, of power plays and of self interests. The various groups concerned are all at fault. Why do I mention this in a discussion of problems of medical education in Florida? I mention this because at the core of the Regional Medical Programs is education. This program was designed to establish a network of communication between medical institutions and medical groups—between various facets of health personnel, and most importantly between medical schools, community hospitals and practicing physicians.

And what is a network of communication but education? If the Regional Medical Programs are to accomplish their aims of improving education in medical and paramedical fields and thus directly improve patient care, then there must be a willingness of all involved to give a little and to work for the common good. The medical schools must play a major, if not the major role in planning for and in implementing these programs. I see in the Regional Medical Programs a potential solution to many of our problems of education in Florida. It is my sincere hope that the in-fighting, suspicions and jealousies of the past can be forgotten so that we can work for quality of medical education not only in Gainesville and Miami, but in Jacksonville, Orlando, Tampa, Pensacola and all places in between.

If educational programs in community hospitals, both graduate and postgraduate, are to be meaningful, they must be influenced to some degree by the medical schools. This relationship can take several forms. The schools can assume the role of the benevolent protector, or the benevolent dictator, or the despot, or they can be a true partner in planning and in operation of educational programs. The alternative is for the medical schools to abandon completely all phases of extramural education. This I hope they will not do.

▶ Dr. Michael, 2000 Jefferson Street, Jacksonville 32206.


for
quick relief
that lasts
and lasts
Co-Pyronil®
Pyrrobutamine Compound
1 PINT (473 cc.)
M-87
SUSPENSION
CO-PYRONIL
PYRROBUTAMINE
COMPOUND
100 No. 336
PULVULES
CO-
PYRONIL
PYRROBUTAMINE
COMPOUND
000
No. 342
PULVULES
CO-PYRONIL
PYRROBUTAMINE
COMPOUND
Pediatric
Lilly
Additional information available to physicians upon request. ELI LILLY AND COMPANY, INDIANAPOLIS, INDIANA 46206.
Lilly
700807



Scientific Section

The Doctor and Criminal Responsibility

GUSTAVE NEWMAN, M.D. and RUFUS M. VAUGHN, M.D.

The community and, on occasion, physicians evidence concern that psychiatric testimony in court regarding criminal matters is an attempt to "get the man off," or it is feared that a very liberal view of felonious behavior will be taken. Because we are concerned about this kind of response to psychiatric consultation to court, we present our experience with 40 cases collected over a period of three years. Our experience would suggest that this public image of the psychiatrist in court is not correct, and that psychiatry can render a significant contribution to the court, the prisoner and society if the limits of this service are clearly understood.

The cases described in this report have arisen in the Fifth Judicial Circuit with which we have had an ongoing consulting relationship since 1962. Referrals to the University Psychiatric Faculty commonly arise with this jurisdiction since no psychiatrists are practicing within the counties of Lake, Citrus, Sumter and Hernando, and recently only one in the county of Marion. Reasons for the referral of criminal cases are several, but they usually involve either a request for an evaluation of the prisoner's current mental competency or an opinion about criminal responsibility. Florida's laws, which are based on the "M'Naghten Rule," are somewhat paradoxical to the psychiatrist in that they draw a clear dichotomy between civil incompetence and criminal responsibility. The former refers to the mental ability to understand the charges and the legal proceedings, and to be able to assist counsel in the preparation of his defense in court. The latter refers to the defendant's mental state at the time he is alleged to have committed a criminal act. Thus, a prisoner may be found criminally responsible but incompetent to stand trial, or competent to stand trial and yet not responsible for his criminal action. Usually, then, in each case separate determinations of competence and responsibility must be made by the psychiatrist.

M'Naghten Rule

The M'Naghten Rule was named for a man tried for murder in the British courts in 1843, who was acquitted on the grounds of insanity. Until

that time there had been much confusion in English law so that the M'Naghten Rule was formulated by a panel of judges. In essence, the rule which was adopted to establish a defense of insanity, that is, not criminally responsible, is as follows: It must be shown that the accused is laboring under such a defect of reasoning from disease of the mind as not to know the nature and quality of the act he was doing or if he did know it, that he did not know what he was doing was wrong.

This rule has been much criticized by lawyers, judges, criminologists and psychiatrists, but as yet none has been developed which is clearly superior to it. It is evident to most critics of the M'Naghten Rule that it compels the psychiatrist to use the single criterion of consciousness or awareness to make his decision about criminal responsibility. It is equally clear to most psychiatrists that the basis of criminal behavior is not merely consciousness as defined in the M'Naghten Rule. In 1864 (when Sigmund Freud was eight years old) the English psychiatrist Maudsley wrote: "The fundamental defect in the legal test of responsibility is that it is founded upon the consciousness of the individual. The most important part of our mental operation takes place unconsciously and certainly what seems most obvious to the psychiatrist who does any forensic psychiatry is that the person who may be technically insane can still distinguish right from wrong, but may not be in a position of his own volition so as to *choose* right from the wrong."

In 1954 the M'Naghten Rule was discarded in the case of Durham vs. U.S. by the United States Court of Appeals for the District of Columbia. In this rather undramatic case of breaking and entering, the court found the M'Naghten Rule to be inadequate. The court then suggested the following rule: "That an accused is not criminally responsible if his unlawful act was a *product* of mental disease or mental defect." This revision had the effect of permitting the examining psychiatrist to regard the offending behavior as "symptomatic" of mental illness, and to avoid making the rather difficult judgment about responsibility for behavior. The opponents of the "Durham Rule" criticize it as being too broad to be useful to the psychiatrist in making fine discriminations. That is, it shifts the focus of attention from an isolated act to the personality of the defendant, and allows the psychiatrist the latitude of his own theories or opinions about personality and mental illness.

In our experience, operating under the M'Naghten Rule has had no serious disadvantages. We are appointed by the court with consent of both counsel for the defense and the prosecution, so that our position is akin to that of *Amicus Curiae,* "friend of the court." We are expected to examine the defendant, utilize our psychiatric skills, and render a deliberate and considered opinion regarding his current competence to stand trial, and his responsibility for his criminal act. Neither prosecution nor defense has a "prejudicial" expectation of the results of our examination, since our services are not retained on behalf of one side or the other. Within this relationship, we have found ourselves free to exercise our clinical judgment, and we do not find any great difficulty in translating our findings into the language of the M'Naghten Rule.

Flexibility of Interpretation

The contrast between our findings in two cases may serve to illustrate the flexibility we are afforded in interpreting the law. In the first example, a woman who was charged with murder was able to give a lucid recitation of the sequence of events leading to the killing. Witnesses substantiated her story of having a pistol thrust into her hand and being told "shoot 'em" when two strangers started a fight with her escort in a cafe. A normal person does not comply when given such an order, and further exploration of the woman's prior history revealed gross abnormality.

About one week earlier, she had experienced auditory hallucinations in which a voice told her "go to the light." Responding to the voice led her to a TV relay tower which she climbed, only to have the voice tell her to jump. She was found at the base of the tower in a confused state, was arrested for creating a public disturbance, fined and released. She told police nothing of her reasons for going to the tower because she had earlier told a friend of hearing strange voices and was rebuffed by the friend's telling her, "you're crazy." Further probing revealed visual and tactile hallucinations intermittently for at least five years prior to her arrest. This schizophrenic woman had led a life of desolate loneliness during the two years since her husband's death and her abnormal compliance to another person was only one manifestation among many of her inability to exercise

Table 1

Criminal Charge	Incompetent	Number Examined
Murder	2	5
Manslaughter	1	2
Assault with deadly weapon	0	3
Sexual assaults*	0	13
Larceny, breaking and entering	2	11
Forgery and uttering	2	4
Escape from prison	1	2
Totals	8	40

*Includes rape, child molestation, crime against nature and incest.

Table 2

Diagnosis	Incompetent	Number Examined
Psychoneurotic	0	4
Schizophrenic	4	6
Personality disorder*	0	10
Sociopathic personality	0	13
Organic brain disturbance**	4	7
Totals	8	40

*Includes passive-aggressive personality, inadequate personality.
**Includes epilepsy, mental retardation, senility and chronic brain syndromes.

reasonable judgment in the conduct of her life. Although she could answer upon direct questioning, "No, it ain't right to kill nobody," we had no hesitation in stating to the court that she was incompetent at the time of the commission of the crime.

The second illustrative case bears direct relevance to Maudsley's criticism of the M'Naghten Rule 102 years ago. In this case, a man charged with murder was quite coherent in relating the circumstances leading up to the killing of his wife's lover. He recalled being told that she was meeting her paramour on a particular morning, where the clandestine meeting was to occur, putting his pistol in his pocket and going to the bar where they were to meet. He clearly remembered chasing his rival from the bar into a nearby alley, where they grappled briefly. His account was quite believable when he said simply that he had no memory of what next occurred, but a few moments later he became aware of his opponent lying on the ground bleeding. This prisoner *assumed* that he had shot the deceased, and although his assumptions were well grounded in circumstance, no one actually witnessed the crime.

Technically speaking, this man was not fully conscious of his actions at the critical moment, and the question of his competence meticulously according to law, might be raised. Thorough historical review gave no evidence of mental illness in this man, either at the time of the crime or predating it. To the contrary, in fact, all data tended to create the picture of a man of healthy personality caught up in a situation not of his making nor of his desire. The lack of clarity of awareness at the moment of the crime did not constitute "defect of the mind" as we construe it, and we rendered the opinion to the court that the defendant was competent, responsible for his actions and capable of assisting in the preparation of his defense.

Results

Table 1 is the tabulation of those persons found incompetent by category of criminal charge. Noteworthy here is that none were found incompetent of the 13 who were accused of sexual crimes. Hearing of their alleged crimes might reasonably arouse doubts as to these men's sanity, but we found no evidence of psychosis in any of them. In over half of these prisoners the diagnosis was sociopathic personality.

Table 2 presents the persons judged incompetent by diagnosis. As one might expect, those persons judged incompetent fell into the two categories in which major mental derangement occurs, schizophrenia and the organic brain syndromes. We direct attention to the fact that the diagnosis of either does not necessarily carry with it the label of incompetence. Approximately half of the prisoners whose condition was so diagnosed were regarded as competent and responsible. Overall, only eight of the 40 prisoners examined were found incompetent by reason of mental illness, although there was "reasonable doubt" in each case.

Summary

Only 20% of 40 criminals examined psychiatrically in the Fifth Florida Judicial Circuit over a three year period were found to be mentally incompetent. Our data would tend to indicate that the presiding judges in this district raise the question of the prisoner's sanity far more frequently than the consulting psychiatrists can confirm the presence of invalidating mental illness.

Dr. Newman, J. Hillis Miller Health Center, Gainesville 32601.

Relationship of Amebiasis to Obstetric-Gynecologic Complaints

MALCOLM C. CROTZER, M.D.

Pain associated with pathology of the rectum and sigmoid, because of the close relationship to the female organs, is frequently interpreted by the patient as "female trouble." The physician, therefore, should have a working knowledge of rectosigmoid pathology and how it relates to gynecologic complaints. Amebiasis is one of the parasitic infestations of the sigmoid and rectum and is endemic in the South and along the Gulf Coast. The incidence of amebiasis is hard to ascertain accurately. A recent report from South Florida, however, showed the incidence to be 0.5%.

See editorial comment, page 575

Material and Methods

A record of the laboratory-confirmed cases of amebiasis from the obstetric and gynecologic service of our clinic has been kept over the past 13 months. The material for examination was obtained by anoscopic examination and, where indicated, sigmoidoscopy. Material to be tested was taken to the laboratory immediately and examined for trophozoites or cysts of Entamoeba histolytica. This was accomplished by direct smear with warm saline or by staining with Quensel stain and/or Gram's iodine. In a total of 28 cases amebiasis was diagnosed in 21 by anoscopic, and two by sigmoidoscopic examination, and five from diarrhea stools. In 22 cases trophozoites were found and cysts were seen in six specimens. Incidental hookworm infestation was present in three cases.

Symptoms and Findings

The symptoms of acute amebiasis are well known, but the protean manifestations of chronic amebiasis may be perplexing. Only those manifestations relating to the gynecologic symptoms will be discussed. Of the 28 cases, five were obstetric. In three of these cases the patients presented with symptoms of acute diarrhea, but in the other two cases, the patient being in the second trimester, presented with the symptoms of a late threatened abortion. In thirteen cases a presenting symptom was lower abdominal pain which the patient referred to as arising from the female organs. Two patients gave dysparunia as the chief complaint. In eight patients the symptoms of amebiasis were secondary to the presenting gynecologic complaints. In two cases acute diarrhea was the primary presenting symptom.

In the patients presenting with lower abdominal pain the symptom varied from mild, vague tenderness, especially in the left lower quadrant, to severe cramping indistinguishable from menstrual cramps. Diarrhea was not associated with this group and a good percentage complained of constipation. The group with symptoms other than their presenting gynecologic complaint had rectal pain or bleeding, and asked that the rectum be checked for hemorrhoids. The patients with acute diarrhea were suspect and need no further discussion. The rectal findings varied from mild to severe tenesmus, which was more marked with a fissure or acute proctitis. On anoscopic examina-

tion, the mucosa varied from normal to markedly hyperemic and ulcerated. The mucus varied from clear and copious, in which the ameba was almost invariably found, to thick, yellow mucus with pus and blood. The findings on pelvic examination are at times difficult to distinguish from pelvic inflammatory disease or the findings associated with blood in the pelvis. Usually, however, the differential diagnosis may be made when pressure on the rectum causes discomfort, or careful palpation of the sigmoid reveals this to be the site of tenderness instead of the left ovary. The following two cases illustrate the problems of diagnosis:

Report of Cases

Case 1.—A 24 year old gravida 2, para 2, who had a suspension of the uterus for pelvic pain six months previously, complained of the same pain. On examination the cervix was clear and the uterus anterior and well supported. There was general discomfort throughout the examination, but on careful palpation a cul-de-sac tenderness was marked on posterior pressure and no discomfort on elevation of the cervix and stretching of the uterosacral ligaments. The uterus was nontender and palpation of the left adnexa revealed a nontender palpable ovary and a tender lower sigmoid. Anoscopic examination revealed a thick, yellow mucus that was negative for E. histolytica, but a sigmoidoscopic examination revealed mucosal ulceration and the smears revealed the trophozoites of E. histolytica.

Case 2.—A 26 year old gravida 5, para 5, whose last menstrual period was two months prior to admission, was admitted to the hospital with acute, severe, lower abdominal pain and rebound tenderness bilaterally. The pain was described as cramping like menstrual cramps. Pelvic examination revealed a tender pelvis with a suggestion of fullness in the cul-de-sac. The uterus felt normal in size and no adnexal masses were palpable. Pertinent information was an appendectomy at eight months gestation complicated by ileus: hemoglobin 13 Gm., WBC 7,500 with 30 polymorphonuclear leukocytes and 70 lymphocytes. She gave a family history of tuberculosis and this diagnosis was entertained. A diagnostic cul-de-sac tap was carried out and a large amount of straw-colored fluid was obtained. This was negative for organisms including acid-fast bacillus, as well as subsequent cultures. The patient was treated with streptomycin with no improvement. On the seventh day of hospitalization she complained of inability to have a bowel movement, although she had been to the toilet several times. Anoscopic examination disclosed an empty rectum with a large amount of mucus. The last bowel movement had been three days prior. Laboratory examination revealed E. histolytica in trophozoite form and the patient responded to antiamebic therapy and was asymptomatic in three days.

Discussion

The gynecologist has been admonished in the past for not including a rectal examination in his routine. In addition, a routine anoscopic examination should not be construed as an invasion into the field of proctology. In an endemic area, amebiasis should be kept in mind when considering the differential diagnosis of pelvic pain. All 28 patients in this series improved on appropriate therapy although recurrences were common, and the fissures all cleared without specific therapy other than that for the ameba. Two patients with the symptoms of amebiasis, but in whom the organisms were not found, were not included in this study. Their symptoms cleared on antiamebic therapy, however.

Summary

In endemic areas, amebiasis must be considered in the differential diagnosis of pelvic complaints.

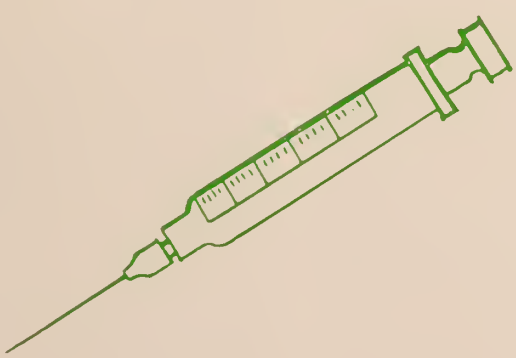
Amebiasis should be considered when the patient presents with rectal complaints, namely, hemorrhoids, periodic bleeding or tenesmus with fissures.

The material obtained by anoscopic or sigmoidoscopic examination must be examined immediately by the laboratory.

Reference

1. Beck, J. W., and Farrer, F. E.: Intestinal Parasitism in South Florida, J. Florida M. A. 53:194-196 (Mar.) 1966.

▶Dr. Crotzer, 214 Hospital Drive, Fort Walton Beach 32548.



Acute Hemorrhagic Pancreatitis During Pregnancy and the Puerperium Associated With Thiazide Therapy

DONALD MENZIES, M.D. and HARRY PRYSTOWSKY, M.D.

Acute pancreatitis during pregnancy and the puerperium is a rare entity. Recently a number of case reports have pointed to a possible relationship between thiazide diuretic therapy and acute pancreatitis, both in pregnant[1,2] and nonpregnant

See editorial comment, page 577

patients,[3-5] male and female. Some evidence, both clinical and experimental, indicates that the thiazides, at least in some persons, are pancreatotoxic.[6] We have recently seen two cases of acute hemorrhagic pancreatitis associated with pregnancy and thiazide therapy at the University of Florida Teaching Hospital. Because of the widespread use of thiazide diuretics in pregnant women today and this generally unrecognized association, we consider it important to report these cases.

Report of Cases

Case 1.—A 23 year old white married primigravida was admitted to an outlying hospital six days prior to her referral to the University Hospital. The chief complaint at that time was vague abdominal pain. The past medical history was negative, and she was at term with a previously uncomplicated antepartum course. During the third trimester she had been treated with chlorthalidone (Hygroton), polythiazide (Renese), and hydrochlorothiazide (HydroDIURIL) intermittently (amount of each unknown) for edema, but there had been no hypertension nor proteinuria.

On admission, the physical examination was consistent with a term pregnancy, not in labor, with normal fetal heart tones and vital signs. The only other positive findings initially were mild, diffuse abdominal tenderness and a leukocytosis of 18,500. No cause for the latter could be found. For three days her condition was unchanged except for postprandial nausea and vomiting which necessitated intravenous fluid replacement. Four days after admission labor was induced by buccal oxytocin (Pitocin) and a healthy, living infant delivered spontaneously without known obstetric difficulty.

In the immediate postpartum period her condition rapidly deteriorated, being marked by a leukocytosis of 48,000, diffuse abdominal tenderness with rebound tenderness in the right lower quadrant and extreme lethargy. A diagnosis of an appendiceal abscess was entertained and an exploratory laparotomy carried out. A diagnosis of acute hemorrhagic pancreatitis was made at the time of operation, following which the serum lipase was greater than 11 units and serum amylase, 800 Somogyi units. She was treated with continuous gastric suction, intravenous fluids and blood replacement, atropine, steroids and intravenous tetracycline. Also, a tracheostomy was required to maintain an adequate respiratory exchange. The day following laparotomy hypotension became a problem, and she was transferred to University Hospital.

On admission to this hospital the patient was in shock with a systolic blood pressure of 70 mm. Hg and an apical pulse rate of 140, with no palpable peripheral pulses. She was disoriented, and the pupils were described as being fixed. Laboratory findings on admission were as follows: Hct 33%; WBC 6,000; BUN 54 mg.%; Na 130 mEq/l.; CO_2 15 mEq/l.; K 4.2 mEq/l.; Cl 105 mEq/l; bilirubin 3.3 mg.%; glucose 24 mg.%; amylase 900 Somogyi units; platelets 40,000; prothrombin time 16.5 seconds with control of 12.2 seconds; phosphorus 6.2 mg.%; and calcium 6 mg.%.

She was treated with intravenous fluids, including blood and plasma and calcium, and in addition by peritoneal dialysis. With this management her condition gradually improved over a two day period, with chemical balance being maintained along with an adequate pressure, urinary output and, at times, normal mentation. With increasing respiratory distress and pulmonary

From the Department of Obstetrics and Gynecology, University of Florida College of Medicine, Gainesville.

edema, a bleeding diathesis, increasing lethargy and slowly progressive hypotension, however, the clinical course became one of gradual and progressive deterioration. On the seventh day after admission to the University Hospital (ninth postpartum day) cardiac arrest developed and resuscitative efforts failed.

Postmortem diagnoses were: acute and chronic interstitial pancreatitis; generalized visceral congestion; pulmonary edema, hemorrhage and bronchopneumonia; fatty infiltration of the liver with bile retention; jaundice; fatty infiltration of the myocardium; focal ulceration of the stomach, ascending colon and rectosigmoid; tracheobronchitis; subendocardial hemorrhage; focal hemorrhage of the bladder, and chronic endometritis.

Case 2.—A 36 year old white married woman, para-2-0-0-2, was admitted to an outlying hospital three days prior to her referral to the University Hospital because of jaundice. She was at term in a pregnancy which had been complicated by a viral illness diagnosed as infectious mononucleosis in the first trimester, intermittent nausea and vomiting throughout the pregnancy, and preeclampsia from the mid-trimester characterized by edema, proteinuria and hypertension (160/110 mm. Hg). Treatment of the toxemia included hydrochlorothiazide (amount and duration of therapy unknown).

One day after admission she went into labor spontaneously and delivered a term, stillborn infant. In the immediate puerperium she became hypotensive and disoriented. The following day she was transferred to the University Hospital because of increasing jaundice and lethargy. On admission she was described as being unable to give a history, but oriented, nauseated and somnolent. Jaundice was obvious, and she complained intermittently of diffuse abdominal pain. Examination revealed the following: icteric sclerae and integument; a few expiratory rales in the right lung base; a boggy uterus extending three fourths of the distance from symphysis to umbilicus without tenderness or excessive bleeding; fresh, repaired midline episiotomy; blood pressure 110/70 mm. Hg; pulse rate 104 per minute; respirations 19 per minute; temperature 37.4 Centigrade, and abdomen slightly distended with hypoactive bowel sounds. Laboratory data on admission were as follows: Hct 34%; WBC 30,000; prothrombin time 17.4 sec. with control of 12.3 sec.; CO_2 22 mEq/l.; Na 123 mEq/l.; K 4.6 mEq/l; alkaline phosphatase 31.9 K-A units; SGOT 31.9 units; total bilirubin 10.7 mg.% (direct 6.1); total protein 5.5 gm.%; cholesterol 188 mg.%; creatinine 2.5 mg.%, and BUN 42 mg.%. Serum calcium reported several days later was normal.

Her initial treatment consisted of intravenous fluids to correct the electrolyte imbalance. The day following admission, hypotension developed (80/70 mm. Hg), and whole blood and vasopressors were used. Shortly, increasing vaginal bleeding, melena and hematemesis developed. On the second hospital day she required 10 units of whole blood to maintain a systolic pressure in excess of 90 mm. Hg. A paracentesis was performed which yielded grossly bloody fluid. With progressive deterioration, a diagnosis of hemoperitoneum, presumably secondary to some unrecognized uterine catastrophe related to the fetal death in utero, was made and abdominal exploration carried out. An amylase determination on the peritoneal fluid was reported as 450 Somogyi units just prior to operation.

At laparotomy, findings were consistent with acute hemorrhagic pancreatitis. The patient had sustained a cardiac arrest immediately prior to operation, and, following operation, the course was progressively downhill. During the next 36 hours cardiac arrest developed three times, with resuscitation being unsuccessful after the third arrest. She had remained hyponatremic until the day of her death, with BUN and the remainder of the serum electrolytes being unchanged. The WBC was consistently elevated, ranging as high as 48,000.

Postmortem diagnoses were: focal hemorrhagic necrosis of the pancreas with edema and mucoid obstruction of the ducts; focal, widespread hemorrhagic necrosis of the liver; focal, widespread fat necrosis of the peritoneum; lipid depletion and autolysis of the adrenals; pulmonary edema; bilateral hemorrhagic pleural effusions (300 cc. each side); hemoperitoneum; hemopericardium; focal hemorrhage of the endocardium of the left ventricle; acute gastritis and duodenitis with focal acute superficial ulcerations of the pyloric region; focal acute inflammation of the jejunum and transverse colon, and hyperemia of the kidneys.

Discussion

In regard to the two cases cited, several points are worthy of mention. The initial symptoms presented by the patients are unlike those described as "classic" for acute pancreatitis. Pain was not severe, and there was no characteristic location. Lethargy was prominent, and occurred early. Extreme leukocytosis was a consistent finding. Initially, symptoms were mild and vague.

It is well recognized that maternal and perinatal mortality is high when pregnancy is associated with this complication.[7] The diagnosis is most often made at postmortem examination and/or laparotomy. With a high index of suspicion, however, cases may be detected earlier. Finally, when thiazide diuretics are employed in the gravid patient, one ought to keep this serious complication in mind.

References

1. Livingston, S. H., and Gold, E. M.: Acute Hemorrhagic Pancreatitis in Pregnancy; Report of a Fatal Case, Obst. & Gynec. 26:237-242 (Aug.) 1965.
2. Minkowitz, S.; Soloway, H. B.; Hall, J. E., and Yermakov, V.: Fatal Hemorrhagic Pancreatitis Following Chlorothiazide Administration in Pregnancy, Obst. & Gynec. 24:337-342 (Sept.) 1964.
3. Jones, M. F., and Caldwell, J. R.: Acute Hemorrhagic Pancreatitis Associated With Administration of Chlorthalidone, Report of a Case. New England J. Med. 267:1029-1031 (Nov. 15) 1962.
4. Shanklin, D. R.: Pancreatic Atrophy Apparently Secondary to Hydrochlorothiazide, New England J. Med. 266:1097-1099 (May 24) 1962.
5. Johnston, D. H., and Cornish, A. L.: Acute Pancreatitis in Patients Receiving Chlorothiazide, J.A.M.A. 170:2054-2056 (Aug. 22) 1959.
6. Cornish, A. L.; McClellan, J. T., and Johnston, D. H.: Effects of Chlorothiazide on Pancreas, New England J. Med. 265:673-675 (Oct. 5) 1961.
7. Langmade, C. F., and Edmondson, H. A.: Acute Pancreatitis During Pregnancy and Postpartum Period; Report of 9 Cases, Surg., Gynec. & Obst. 92:43-52 (Jan.) 1951.

Dr. Prystowsky, University of Florida College of Medicine, Gainesville 32601.

Abdominal Pregnancy With Fetal Death at Twenty-nine Weeks

Case Report

JACKSON L. ALLGOOD JR., M.D. and HENRY H. PAYNE JR., M.D.

Abdominal pregnancy is an infrequent obstetrical event occurring approximately once in 3,500 births. The following case represents a typical rupture of a tubal pregnancy occurring early in gestation with implantation of the placenta on the tube, cornual region, and broad ligament of that side, but with intra-abdominal fetal death at 29 weeks gestation which remained unrecognized for an additional 29 weeks. The patient exhibited many of the typical historical, physical and radiological findings seen in abdominal pregnancy.

Report of Case

A 24 year old Negro, para 1-0-0-1, was referred for evaluation of a pelvic tumor in September 1966. The last menstrual period was on July 19, 1965, the menarche at age 12 and regular periods occurred approximately every 28 days, lasting four to five days and averaging 10 pads per period. During the months of August and September 1965, she noted breast fullness and a feeling of pregnancy, but no nausea. In October, abdominal pain with vaginal spotting and cramps developed for which she sought daily medical attention for one week. She was given injections which relieved the pain somewhat, but she was not hospitalized.

During November and December and January 1966, fetal movements were noted which were fluttering in nature, but not painful. The patient felt the fetus to be high in the abdomen, up under her ribs. In February, nausea, vomiting, fever, chills and back pain developed which she was told were caused by a kidney infection. She was treated at home for seven days during which time she ran a high temperature for two days and then a lower temperature for five days. She did not take her temperature during this period, but remained in bed and did not resume her normal activities. No more fetal movements were felt after the month of February. In March her breasts began to drain watery fluid and she began to have vaginal spotting. The uterus did not enlarge, and in the following months began to reduce in size. Beginning in April the patient began to have monthly periods with cramps, which were unusual for her. She had no vaginal spotting between periods, and the flow was not excessive.

Past history revealed she had no previous pelvic inflammatory disease. Her only child was a female born in September 1963, after three years of marriage using no contraceptives. She was in labor 27 hours and required an emergency transfusion of blood. It was not known whether this transfusion was of matched or unmatched blood as records of this admission were not available. This infant was not jaundiced and was normal in all respects. There was no family history of diabetes or of frequent intrauterine death.

Physical examination revealed a young, well appearing Negro female. Her breasts were soft, not distended and no discharge was present. A slightly irregular mass within the lower portion of the abdomen was estimated to be of 28 to 30 weeks gestational size. No definite fetal parts could be identified, but the mass was more irregular than the normal pregnant uterus. The cervix was long and closed and no fetal parts could be identified within the lower uterine segment, which was small and firm for this gestational age. No definite separate uterus or mass could be felt, however.

Before seeing the flat plate of the abdomen, the possibility of the diagnosis of intrauterine death was entertained. Laboratory tests revealed the following: hemoglobin, 13.4 Gm./100 ml.; hematocrit level, 42%; two hour postprandial blood sugar, 104 mg.; clotting time of 60 seconds with firm clot formation; fibrinogen level reported as normal; partial thromboplastin time, 79 seconds, control 64 seconds; peripheral smear showed normal clumping and numbers of platelets; prothrombin time, patient 14, control 14; patient, group O Rh positive; antibody screening, negative; husband, group B Rh positive CDe/cde (R_1r), apparently heterozygous.

A flat plate of the abdomen (fig. 1) revealed a fetus with overlapping of the skull bones, angulation of the cervical spine and excessive extension of the arms and legs. The fetus was high in the abdominal cavity and close to the abdominal wall. A separate mass was noted in the pelvis which was interpreted as the uterus. The fetal skeleton was unusually clear for this stage of gestation, and lay partially transverse with the dorsum cephalad and the extremities caudad, which is opposite to the situation existing with the transverse position in intrauterine pregnancies. A hysterosalpingogram (figs. 1 and 2), using esterified media, and a lateral view of the abdomen were taken which showed a relatively normal

uterine cavity that flexed sharply downward and to the patient's left. The left fallopian tube was patent and spilled contrast material into the abdominal cavity, but the right fallopian tube was not identified. Dense puddling of contrast material in the pelvis was suggestive of loculations caused by adhesions. Contrast material somehow escaped into the venous system of the pelvis and the maternal renal structures were outlined, which appeared normal. No ill effects were noted. The lateral x-ray of the abdomen was not of satisfactory technical quality for interpretation.

Two thousand cubic centimeters of blood was available for the patient when she was operated upon. A midline subumbilical incision was made and a female fetus was found high in the abdominal cavity with a few filmy adhesions between the omentum and the fetus' head. The umbilical cord was adherent to the fetus' right thigh but was not attached to any part of the mother. The fetus was removed easily with the thin and fragile amniotic sac closely adherent to the fetus. The placenta was attached to the area of the right broad ligament, right fallopian tube and right cornual region. Little bleeding was encountered and because of the involvement of the right cornual region and adnexal structures, a total hysterectomy, right salpingo-oophorectomy and appendectomy were performed with preservation of the left adnexal structures. The procedure was tolerated well; estimated blood loss was 400 cc.



Fig. 1.—The fetus is seen high in the abdominal cavity as described. Contrast material is shown in the uterine cavity which is pushed to the left. Contrast material also is seen in the left cornual region, left tube, pelvic veins and kidneys. Puddling of the contrast material is indicated on the right.



Fig. 2.—The uterine cavity is pushed to the left with the left tube visualized. Puddling of contrast material is shown on the right with filling of the placental plexus.

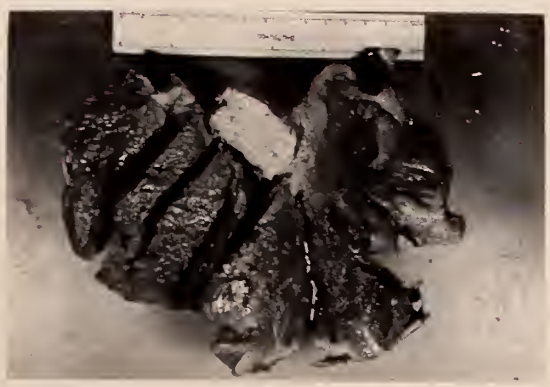


Fig. 3.—The uterus is opened posteriorly with the cervix at the bottom of the picture and the placenta on the right.



Fig. 4.—The fetus shows the closely adherent amniotic sac and partially reabsorbed digits.

Examination of the uterus showed an enlarged uterus with the placenta placed as previously described. Upon sectioning the mass (fig. 3), the right ovary was identified as was the right fallopian tube, which was only partially attached to the fundus of the uterus. The endometrial cavity was empty with the right cornual region blocked and the left open at the site of amputation of the left adnexal structures. The fetus (fig. 4) weighed 1,000 Gm., and the crown rump measurement was 24.5 cm. The internal organs were partly obscured by autolysis, but were grossly normal. Microscopically, the fallopian tube was said to have no major histologic changes but, at the distal end, maceration and hemorrhage were seen. Areas of chorionic villi and pseudodecidual reaction were identified within the myometrium and interpreted as placenta increta.

The postoperative course was uneventful and the patient was discharged on the fifth postoperative day.

Discussion

As previously mentioned, this patient represents a case which exhibits many of the typical findings of abdominal pregnancy but which went unrecognized for 14 months while the patient carried on an almost normal life. The bleeding and pain during the third month probably represent the rupture of an ectopic pregnancy with implantation on the right side of the uterus. Fetal movements were not painful, but were not normal and she had the sensation of the pregnancy being high in the abdomen. Fetal death was probably influenced by an attack of pyelonephritis, although often the fetus will die at this stage of gestation in abdominal pregnancy. The abdominal pregnancy continued unrecognized for seven months after fetal death with cessation of fetal movements and the onset of breast drainage. Physical findings were suggestive but not diagnostic of abdominal pregnancy. The flat plate of the abdomen evidenced many of the typical changes of abdominal pregnancy which were confirmed by hysterosalpingogram. The placenta was implanted at a frequent site in abdominal pregnancy, and operation was carried out uneventfully once the diagnosis was made, with excellent postoperative recovery. The most remarkable part of this case is the fact that an abdominal pregnancy went this period of time unrecognized with the patient in relatively good health and experiencing little inconvenience.

▶Dr. Allgood, 2546 St. Johns Avenue, Jacksonville 32204.



Long Term Anticoagulant Therapy

Practical Approach

MATTHEW H. BRADLEY, M.D.

Long term anticoagulant therapy, primarily utilized in ischemic heart disease, has long been a controversial mode of therapy. The glowing reports by its proponents have frequently been neutralized by similar observations of its lack of success, and myriads of complications and side effects have actually led some to conclude that it has a deleterious effect.

It is not the intention of this paper to propose long term anticoagulants in certain disease states, but only to facilitate and simplify their use once this choice of therapy has been selected. Like any potent tool in the physician's armamentarium, anticoagulants are a two-edged sword, but attention to and knowledge of fundamental details can unite both edges to a more useful therapeutic approach.

A long term program signifies many months, or perhaps years, of therapy in patients who are frequently already in some complex medical program, so that a thorough indoctrination between physician and patient is essential. In addition, the major portion of the program is on an outpatient basis where the patient must assume new responsibility for accuracy and performance, and the physician must be sensitive to, and available for, the many problems that may arise.

Attaining and maintaining a therapeutic level* of anticoagulants may be greatly facilitated by the use of the record sheet depicted in figure 1. The record of four months of therapy is visible at a glance, and many of the factors that may influence the prothrombin time, such as antibiotics or supplemental heparin, are easily recorded. In this office the patient's prothrombin time is determined by the technician, recorded on the chart and placed on the physician's desk for dosage. This dosage is telephoned to the patient who in turn records it on a daily basis on paper, and an appointment is then made for the next test. No dosage is given for the day on which the next test will fall, thus permitting a more accurate test. If the patient does not appear by 3:00 p.m. on the test day, he is called. If the patients are not seen by the physician on the day of their test, they are carefully, but tactfully, questioned by the technician for evidence of occult bleeding, inaccuracy of administration, drug ingestion and whether any cardiovascular symptoms of importance have occurred. It is perhaps this interview that is one of the prime factors in the mortality reductions reported by many authors in the use of anticoagulants; it exerts a certain control on patients that conceivably might forestall trouble, such as in the state of impending myocardial infarction.

Practical Measures in Dosage Requirements

Salicylates may complicate anticoagulant therapy, first in inhibition of the liver's production of prothrombin, and secondly, by irritation of the upper segment of the gastrointestinal tract

*To avoid controversy, a therapeutic level of anticoagulants is defined as one and one-half to two and one-half times the control in seconds.

NAME_____

ANTICOAGULANT CHART

YEAR_____

MATTHEW H. BRADLEY, M.D.

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
LEE -WHITE																															
P-T IN SEC.																															
CONTROL																															
DRUG TABLET SIZE																															
Remarks:																															

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
LEE -WHITE																															
P-T IN SEC.																															
CONTROL																															
DRUG TABLET SIZE																															
Remarks:																															

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
LEE -WHITE																															
P-T IN SEC.																															
CONTROL																															
DRUG TABLET SIZE																															
Remarks:																															

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
LEE -WHITE																															
P-T IN SEC.																															
CONTROL																															
DRUG TABLET SIZE																															
Remarks:																															

which may provoke major hemorrhage on occasion. The complete avoidance of salicylates, however, is not warranted. One to two grams may safely be prescribed in a single 24 hour period, and actually for longer periods if the anticoagulant dosage is reduced. The salicylate substitutes such as acetaminophen (Tylenol) are acceptable, and not subject to the problems mentioned.

Alcohol

The consumption of alcohol completely parallels that of salicylates, and can be used without difficulty in reasonable amounts that avoid irritation of the gastrointestinal tract.

Antibiotics

The effects of anticoagulants are amplified by antibiotics through their suppression of the vitamin K-producing intestinal flora. Dosage and duration of therapy are factors, so that more frequent testing and reduction of anticoagulant dosage will be required. The type of antibiotic is of considerable importance. For example, the tetracyclines have a much greater effect than penicillin since they inhibit the coliform bacillus to a much greater degree. It should be recalled that there is a considerable time lag, often three to five days, for this effect to commence, and a similar lag to its dissolution.

Other Factors

Through their interference with prothrombin production, hepatotoxic drugs may have a profound effect on the anticoagulant dosage. Similarly, hepatic congestion related to heart failure must be emphasized. Of course primary liver disease, liver metastases, poor nutrition, chronic diarrhea of various cause, the absorption by mineral oil of the fat-soluble vitamin K and the varying amounts of vitamin K in the diet may all be factors in the anticoagulant dosage requirement.

Commonly Encountered Problems

Bruising.—While the occurrence of thrombosis during ideal anticoagulation is frequently encountered, just as often seen is the problem of bleeding and bruising at less than therapeutic dosage levels. The patients who demonstrate large ecchymosis from no recalled injury, or those who simply ooze blood from the face after shaving without obvious "razor nick," are commonly seen. Of course these same signs may be an indication of excessive prothrombin depression, and testing must be done. Usually, however, this is not the case, and it has been found that large doses of ascorbic acid (500 mg. to 1,000 mg.) daily or the citrus bioflavinoid compound (200 mg. to 1,000 mg.) daily will relieve this tendency without having any effect on the clotting mechanism.

Surgery.—The suggestions herein outlined are based on the premise that the reader believes in the efficacy of long term anticoagulant therapy; that interruption of the program poses some risk to the patient, and that there is a hypercoagulation syndrome which may result from the abrupt cessation of therapy, particularly by the use of vitamin K. All of this is controversial, and its debate is not within the scope of this paper. There are many of us who desire, however, to "taper off" the dosage when anticoagulants must be discontinued, and who routinely carry this out unless delay poses some additional hazard, such as in the presence of major hemorrhage.

It should be recalled that bleeding may not always be due to the anticoagulant alone, and may in fact be the first clue to some serious, but otherwise occult pathologic condition.

Dental extraction is probably the most common surgical procedure encountered in the anticoagulated patient. Although one may carry out an extraction under full therapeutic levels of anticoagulants, it is usually more desirable to reduce the dosage gradually over a period of four to seven days by the amount that will produce a prothrombin time approximately four to seven seconds over that of the control. A test is performed in the morning and a favorable report given to the patient if the results are satisfactory. He is instructed to take his prescribed dosage of anticoagulant that evening after extraction if no bleeding has occurred, and he is given the next day his anticoagulant in an amount that would replace the previous deficit. Upper tooth extractions are less likely to cause bleeding, as well as those cases in which there is no infection, and in which adequate sutures are used. Significant postoperative bleeding is unusual and can usually be handled by mechanical measures. Rarely is the administration of vitamin K required.

Other Surgical Procedures.—A general rule for surgical procedures is that where bleeding might be unrecognized and inaccessible, such as in a liver biopsy or thoracentesis, or where bleeding into a closed space might create pressure effects, as in a lumbar puncture, these procedures should be undertaken only after the prothrombin time has been returned to within a few seconds of normal.

Travel.—Travel may impose some problems; but these are usually not too difficult. Unless patients have a direct medical contract in another city, I prefer to give them a letter asking the local hospital laboratory to perform the test and give the results in seconds as well as the control, to the patient, who in turn telephones me for dosage. Patients traveling abroad for longer than four to six weeks can be given a contact through the several domestic organizations that have been established for this purpose.

Other Considerations.—Frequency of testing varies with the situation. Many patients who have demonstrated good stability in their dosage requirements can safely be tested at monthly intervals. At other times testing may be carried out several times in a week, although when tests are close together, the time lag between administration and effect must be considered.

Certain side effects are worthy of reminder: gastrointestinal disturbances, fever and dermatitis are the more common ones, but bone marrow depression, alopecia and nephropathy are alarming when seen. Elevation of the serum transaminase may occur, confusing a picture of suspected myocardial infarction. Bleeding from anticoagulants, however, may be the first clue to some occult pathologic condition such as in the kidney, lung or gastrointestinal tract.

A long term anticoagulant program utilizing heparin is not commonly encountered, but has its proponents. For example, certain investigators will point out that heparin is the more complete anticoagulant, that it has a much wider margin of safety, that it has a strong antiatherogenic effect and that its cost is comparable to that of the oral prothrombinopenic drugs, since testing is infrequently required once the proper dosage has been determined. One daily "intra fat" injection of heparin is usually satisfactory. The patient's reluctance to have a daily self-administered injection should be no greater than that of the diabetic to his insulin.

Summary

Anticoagulants may be regarded with anxiety and uncertainty by both the patient and physician. If, however, a number of relatively minor, but basic details are kept under scrutiny, a rewarding degree of simplicity and success may be attained.

References

Van Cleve, R. B.: Experience With Discontinuation of Long Term Anticoagulant Therapy, J.A.M.A. 196:1156-1158 (June 27) 1966.

Sharland, D. E.: Effect of Cessation of Anticoagulant Therapy on Course of Ischemic Heart Disease, British M. J. 2:392 (Aug. 13) 1966.

Nichol, E. S.; Phillips, W. C., and Casten, G. G.: Virtue of Prompt Anticoagulant Therapy in Impending Myocardial Infarction, Ann. Int. Med. 50:1158-1173 (May) 1959.

Wright, I. S.: Practical Aspects of Long Term Anticoagulant Therapy, Modern Medicine (Dec. 10) 1963.

Vigran, I. M.: The Management of Long Term Anticoagulant Therapy, Geriatrics 18:916-932 (Dec.) 1963.

Nathan, David A., and Kimball, Sanford G.: The Detection of Occult Tumors During Anticoagulant Therapy. Anticoagulant Therapy in Ischemic Heart Disease. New York, Grune and Stratton, 1965.

Bradley, Matthew H.: Side Effects of Anticoagulants Other Than Hemorrhage. Anticoagulant Therapy in Ischemic Heart Disease. New York, Grune and Stratton, 1965.

Engelberg, Hyman: Heparin: Metabolism, Physiology and Clinical Application. Springfield, Ill., Charles C. Thomas Co., 1963.

▶ Dr. Bradley, 1025 Kane Concourse, Miami Beach 33154.

Williams Dean Steward, M.D.
Ninetieth President

Williams Dean Steward, M.D., was elevated to the presidency of the Florida Medical Association at the Ninety-Third Annual Meeting held May 11-14 at the Americana Hotel, Bal Harbour.

Dr. Steward is presently a practicing internist in Orlando. Born Nov. 25, 1914 in Augusta, Ga., he attended local schools, graduating from the Junior College of Augusta, Ga. in 1932. He received his Doctor of Medicine degree from the Medical College of Georgia in 1936. After serving an internship at the Baroness Erlanger Hospital, Chattanooga, Tenn. and residencies at the C & O Railroad Hospital, Clifton Forge, Va. and the Pine Breeze Tuberculosis Sanatorium, Chattanooga, Tenn., Dr. Steward entered the Army Medical Corps in 1940.

During Dr. Steward's six years in the Army Medical Corps, where he attained the rank of major, he attended the Army School of Tropical Medicine and set up the Field Hospital, Saipan, for care of native casualties. Dr. Steward was awarded the Bronze Star and two campaign stars for service in the Central Pacific Theater of Operations.

After leaving the Army Medical Corps in 1946, Dr. Steward entered yet another residency at the Jefferson Hospital, Philadelphia, Pa. Dr. Steward began private practice in Orlando in 1946, where he has practiced since.

In his years with the FMA since 1946, Dr. Steward has served as a delegate from Orange County to the House of Delegates, as chairman of the Council on Special Activities and as a member of the Committee on Liaison with County Medical Societies. He has served his county medical society as president, member of the Board of Censors, chairman of the Health Insurance Mediation Committee, chairman of the Public Health Committee and chairman of the Legislative Committee.



A Fellow of the American College of Physicians, Dr. Steward also holds membership in the American Medical Association, Southern Medical Association, Orlando Medical Study Club, American Heart Association, American Diabetes Association, Arthritis and Rheumatism Association and is a Fellow of the American College of Cardiology and a Fellow of the American College of Chest Physicians.

Offices held by Dr. Steward in other medical organizations include president, Florida Society of Internal Medicine; Florida delegate to the American Society of Internal Medicine, member of the Board of Directors, vice president and president, Blue Shield of Florida; president, Orange County Heart Association, and member of the Executive Committee of the Florida Chapter, Arthritis Foundation.

Dr. Steward is married to the former Martha Frances Boyd and they have three children, Frances Jouett, Martha Dean and Boyd Gunter.

A COMPLETE BUSINESS SERVICE

FOR THE MEDICAL
AND DENTAL
PROFESSIONS

Professional Management

PM FLORIDA

233 Fourth Avenue, N.E.
St. Petersburg, Florida
Phone 898-5074

1855 Hillview Street
Sarasota, Florida
Sarasota Phone 958-4493
4771 Bilmark
Ft. Myers, Florida
Ft. Myers Phone 936-3162

PROFESSIONAL MANAGEMENT FOR PHYSICIANS AND DENTISTS since 1932 PM

417 Executive Building
1175 N.E. 125th St.
Miami, Florida 33125
Dade Phone 751-2101
Broward Phone 523-0286

Affiliates of Black & Skaggs Associates
Battle Creek, Michigan

YOUR Patronage Has Made Our Growth Possible

Medical Supply Company of Jacksonville



Home Office

JACKSONVILLE
4539 Beach Blvd.
Telephone FL 9-2191

ORLANDO
1511 Sligh Blvd.
Telephone GA 5-3537

Tandearil®
oxyphenbutazone

Therapeutic Effects: Tandearil is a nonhormonal compound which may rapidly resolve inflammation and help restore normal joint function. Its action does not affect pituitary-adrenal function or impair immune responses. Its value in osteoarthritis is especially noteworthy because this disorder responds inconsistently to steroids and is often resistant to salicylates. Further, indomethacin is limited only to osteoarthritis of the hip, whereas oxyphenbutazone is effective in all forms of the disease.

Contraindications: Edema; danger of cardiac decompensation; history or symptoms of peptic ulcer; renal, hepatic or cardiac damage; history of drug allergy; history of blood dyscrasia. The drug should not be given when the patient is senile or when other potent drugs are given concurrently.

Warning: If coumarin-type anticoagulants are given simultaneously, watch for excessive increase in prothrombin time. Pyrazole compounds may potentiate the pharmacologic action of sulfonylurea, sulfonamide-type agents and insulin. Carefully observe patients receiving such therapy. Use with great caution in the first trimester of pregnancy.

Precautions: Obtain a detailed history and a complete physical and laboratory examination, including a blood count. The patient should be closely supervised and should be warned to report immediately fever, sore throat, or mouth lesions (symptoms of blood dyscrasia); sudden weight gain (water retention); skin reactions; black or tarry stools or other evidence of intestinal hemorrhage. Make regular blood counts. Discontinue the drug and institute countermeasures if the white count changes significantly, granulocytes decrease, or immature forms appear. Use greater care in the elderly and in hypertensives.

Adverse Reactions: The most common are nausea, edema and drug rash. The drug has been associated with peptic ulcer and may reactivate a latent peptic ulcer. Infrequently, agranulocytosis, or a generalized allergic reaction may occur and require withdrawal of medication. Stomatitis, salivary gland enlargement, vomiting, vertigo and languor may occur. Leukemia and leukemoid reactions have been reported but cannot definitely be attributed to the drug. Thrombocytopenic purpura and aplastic anemia may occur. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hyperglycemia, hepatitis, jaundice, and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently. Moderate lowering of the red cell count due to hemodilution may occur.

Dosage in Osteoarthritis: The initial daily dosage in adults is 300-600 mg. in divided daily doses. When improvement occurs, dosage should be decreased to the minimum effective level; this should not exceed 400 mg. daily, and is often achieved with only 100-200 mg. daily.

For complete details, please refer to full prescribing information. 6562-VI(B)R

Availability: Tablets of 100 mg.

Geigy Pharmaceuticals
Division of Geigy Chemical Corporation
Ardsley, New York

Geigy

Tandearil®
oxyphenbutazone

helps osteoarthritic joints move again



3 out of 4 osteoarthritics completely or markedly improved

Sperling, I.L.: 3 Years' Experience with Oxyphenbutazone in the Treatment of Rheumatic Disorders, Applied Therapeutics 6:117, 1964.	76.9% of 407 patients
Watts, T.W., Jr.: Treatment of Rheumatoid Disorders with Oxyphenbutazone, Clin. Med. 73:65, 1966.	84.6% of 39 patients

Please see adjoining page for brief prescribing summary

TA-4919 PC

Why these 7 patients with moderate to severe anxiety may respond better to Mellaril

1. The agitated patient.
Anxiety—particularly that beyond the range of minor tranquilizers—frequently is expressed as gross motor restlessness, fidgetiness and purposeless movements, and may erupt into aggressive behavior. Mellaril is almost a specific for those patients whose anxiety follows such a pattern.





2. The psychosomatic patient.

The family physician is rarely given the diagnostic luxury of a classic, textbook "anxiety state." Most often he must probe for anxiety masked by a functional disorder—or which exacerbates a somatic problem. Double-blind evaluations have demonstrated that Mellaril can be a significant adjunct in the treatment of such patients.



3. The patient under situational stress.

Mellaril helps the patient deal with stresses of everyday life. Nonhabituating, it can be given for extended periods of time. It does not "separate" the patient from practical problems and pressures, does not induce euphoria or a fuzziness which can compromise the ability to cope with realities. Rather, it helps the patient move more competently in his daily world by eliminating useless tension, by allowing him to conserve emotional resources and energies, and to direct them against the problems really worth worrying about.



4. The menopausal patient.

The woman who sees change of life as the end of useful life requires support from both family and family physician. Whether the psychological impact of menopause is directly related to hormonal changes, or merely coincidental, is debatable, but estrogenic therapy is frequently inadequate. Mellaril is a useful aid for these patients and, alone, or in combination with reduced estrogen dosage, will help ease the menopausal misery.



5. The previously hospitalized psychiatric patient.

Such a patient may still require the type of medication he has been accustomed to, but because he is no longer in a controlled setting the acceptable level of adverse reactions must be lower. In such circumstances Mellaril is perhaps the drug of choice.



6. The agitated geriatric.

Tranquilizer therapy in the elderly patient always involves special (or at least accentuated) problems: the possibility of drug-induced ataxia, hypotension or depression, for example, assumes an additional significance. These reactions have rarely been observed in geriatric patients treated with Mellaril.



7. The constantly returning patient.

The anxiety patient who has not responded to a minor tranquilizer is not very likely to benefit from your minor tranquilizer of second choice. A major tranquilizer, such as Mellaril, may be indicated in such patients.

Contraindications: Severely depressed or comatose states from any cause, and in association with or following MAO inhibitors; severe hypertensive or hypotensive heart disease.

Precautions: Hypersensitivity reactions (e.g., leukopenia, agranulocytosis) and convulsive seizures are infrequent. Pigmentary retinopathy has been observed where doses in excess of those recommended were used for long periods of time. May potentiate central nervous system depressants, atropine, and phosphorus insecticides. Where complete mental alertness is required, administer the drug cautiously and increase dosage gradually. In addition, orthostatic hypotension (especially in female patients) has been observed. Epinephrine should be avoided in treatment of drug-induced hypotension.

Side Effects: Pseudoparkinsonism and other extrapyramidal disorders are infrequent; drowsiness, especially in high doses early in treatment, may occur; nocturnal confusion, dryness of the mouth, nasal stuffiness, headache, peripheral edema, lactation, galactorrhea, and inhibition of ejaculation are noted on occasion; photosensitivity and other allergic skin reactions may occur but are extremely rare.

Before prescribing, see package insert for full product information.

in moderate to severe anxiety, 25 mg. t.i.d.

Mellaril®

(thioridazine)

SANDOZ


Bartholin's gland
Periurethral glands
Cervical glands
Flagyl®.....
brand of
metronidazole
Seminal vesicles
Bladder
Prostate gland

Flagyl seeks out the sites where trichomonads hide. Only a systemic agent can. Flagyl does, selectively and effectively.

Flagyl destroys trichomonads in the inner crypts, glands and cavities of the genitourinary tract in both women and men. Consequently, Flagyl is capable not only of curing trichomoniasis in women but also of preventing reinfection.

Correctly used, with due attention to repeat courses of treatment for resistant, deep-seated invasion and to the presumption of reinfection from male consorts, Flagyl has repeatedly produced up to 100 per cent cure in large series of patients.

When the diagnosis of trichomoniasis is positive, Flagyl is positive.

Dosage and Administration — In *women:* one 250-mg. oral tablet three times daily for ten days. A vaginal insert of 500 mg. is available for local therapy when desired. When used, one vaginal insert should be placed high in the vaginal vault each day for ten days; concurrently two oral tablets should be taken daily.
In *men* in whom trichomonads have been demonstrated: one 250-mg. oral tablet twice daily for ten days.

Contraindications — Pregnancy; disease of the central nervous system; evidence or history of blood dyscrasia.

Precaution—Complete blood cell counts should be made before, during and after therapy, especially if a second course is necessary.

Side Effects—Infrequent and minor side effects include nausea, metallic taste, furry tongue and headache. Other effects, all reported in an incidence of less than 1 per cent, are diarrhea, dizziness, vaginal dryness and burning, dry mouth, rash, urticaria, gastritis, drowsiness, insomnia, pruritus, sore tongue, darkened urine, anorexia, vomiting, epigastric distress, dysuria, depression, vertigo, incoordination, ataxia, abdominal cramping, constipation, stomatitis, numbness of an extremity, joint pains, confusion, irritability, weakness, flushing, cystitis, pelvic pressure, dyspareunia, fever, polyuria, incontinence, decreased libido, nasal congestion, proctitis and pyuria. Elimination of trichomonads may aggravate candidiasis.

Destroys Trichomonads Wherever They Are

SEARLE *Research in the Service of Medicine*

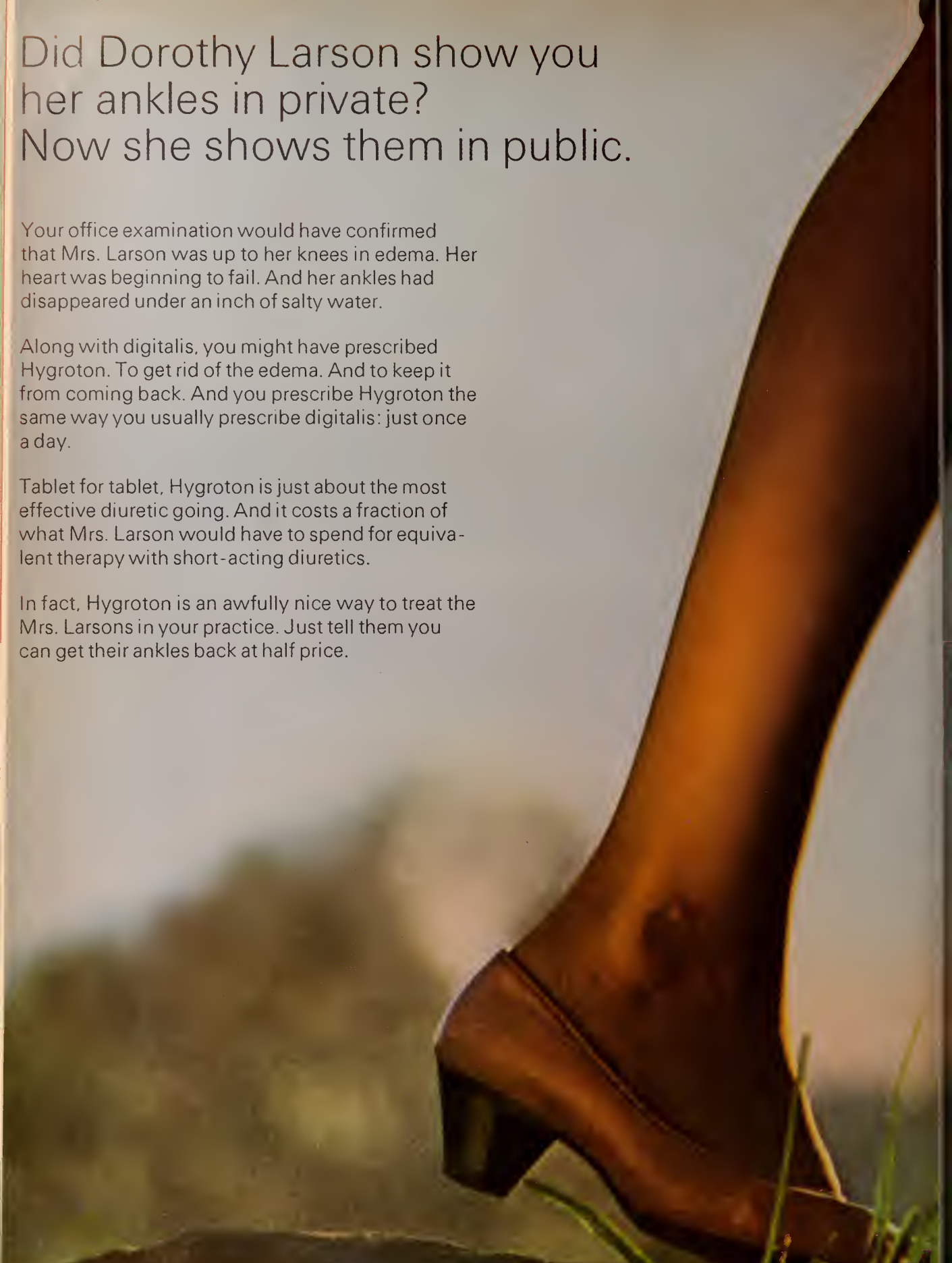
Did Dorothy Larson show you her ankles in private? Now she shows them in public.

Your office examination would have confirmed that Mrs. Larson was up to her knees in edema. Her heart was beginning to fail. And her ankles had disappeared under an inch of salty water.

Along with digitalis, you might have prescribed Hygroton. To get rid of the edema. And to keep it from coming back. And you prescribe Hygroton the same way you usually prescribe digitalis: just once a day.

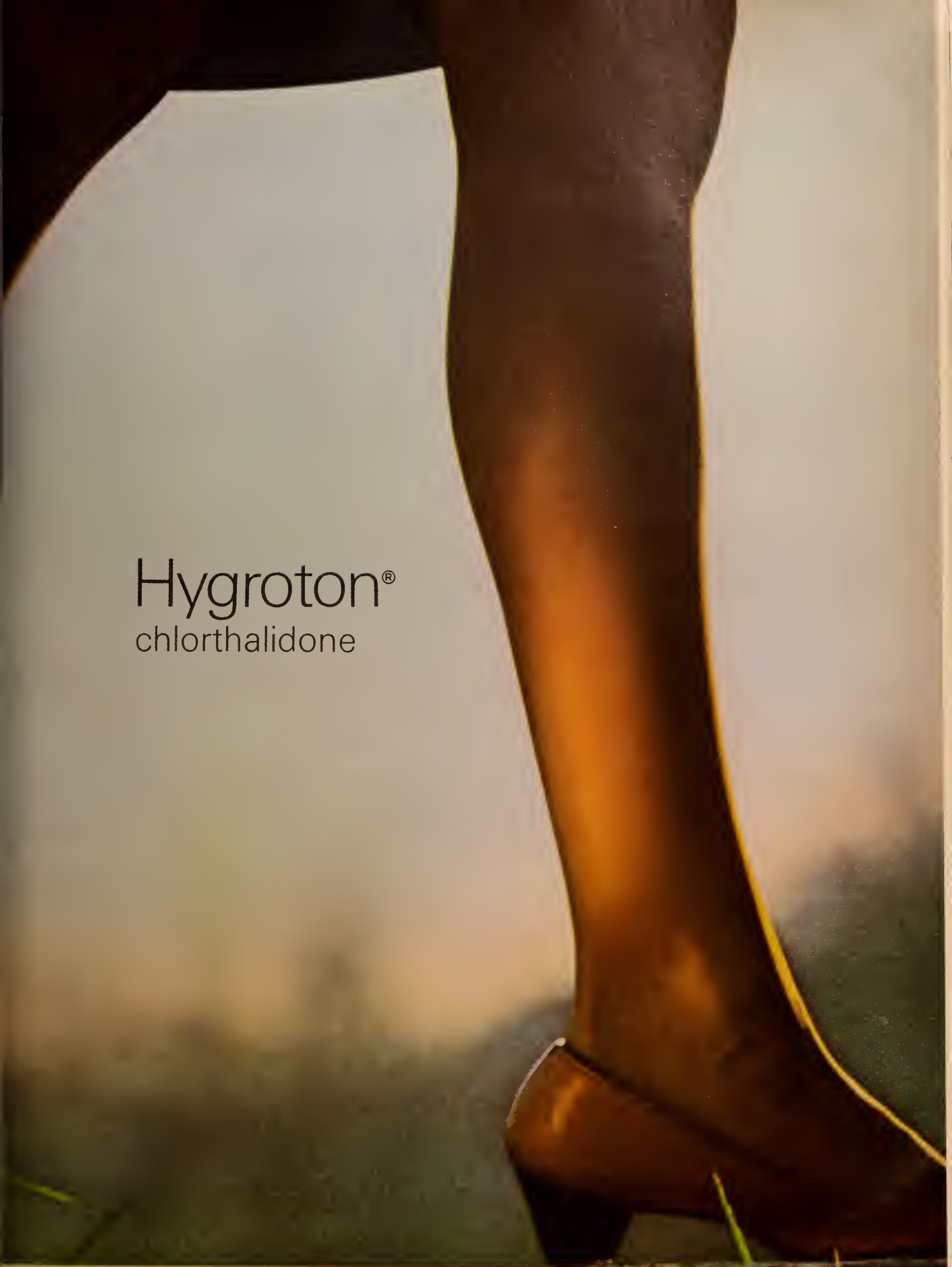
Tablet for tablet, Hygroton is just about the most effective diuretic going. And it costs a fraction of what Mrs. Larson would have to spend for equivalent therapy with short-acting diuretics.

In fact, Hygroton is an awfully nice way to treat the Mrs. Larsons in your practice. Just tell them you can get their ankles back at half price.



Indications. Hypertension and many types of edema involving retention of salt and water.
Contraindications. Hypersensitivity and most cases of severe renal or hepatic disease.

Warning: With administration of enteric-coated potassium supplements, the possibility of small bowel lesions should be kept in mind.
Precautions: Reduce dosage of concomitant antihypertensive agents by at least one-half. Discontinue if the BUN rises or liver dysfunction is aggravated. Electrolyte imbalance and potassium depletion may occur; take special care in cirrhosis or severe ischemic heart disease



Hygroton®
chlorthalidone

...n patients receiving corticosteroids, ACTH, or digi-
...s Salt restriction is not recommended.
...de Effects Dizziness, weakness, nausea, vomiting,
...yperglycemia, hyperuricemia, headache, muscle cramps, postural hypotension, constipation, leukopenia, thrombocytopenia, agranulocytosis, impotence, dysuria, transient myopia, skin reactions, including urticaria and purpura, epigastric pain, or G.I. symptoms after prolonged administration.

Average Dosage: One tablet (100 mg.) with breakfast daily or every other day.

Availability: Tablets of 100 mg. 6524-V(B)

For full details, see prescribing information.

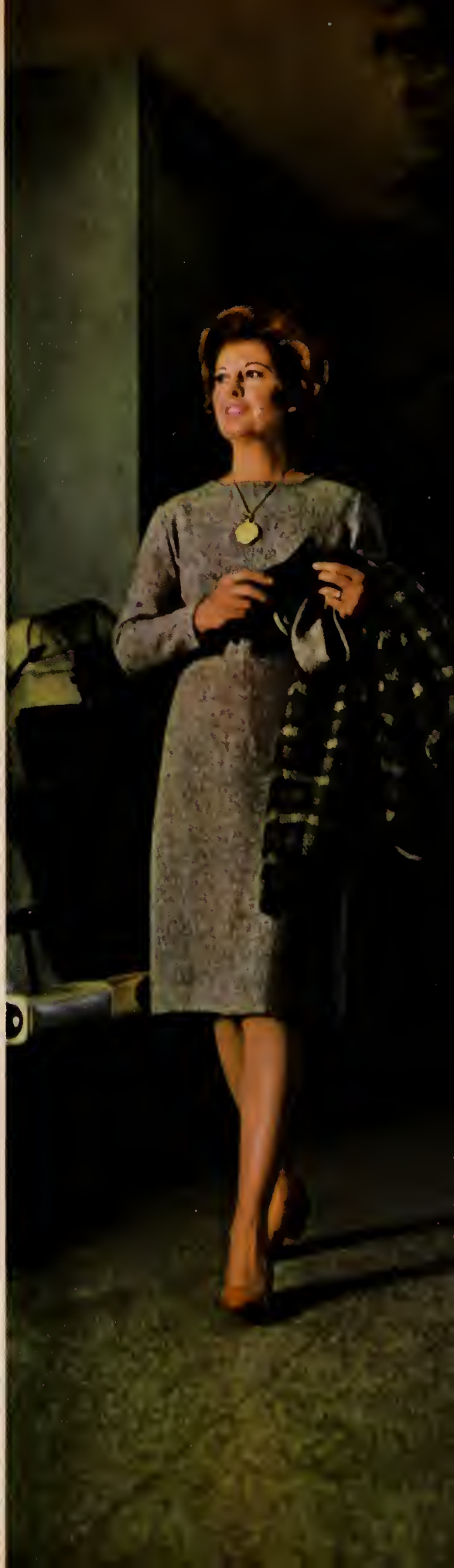
...so you might say Hygroton is good public relations for Mrs. Larson

Because it gets her *out* in public in the first place. At 43, Mrs. Larson worries about appearances and swollen ankles don't help.

But Hygroton's cosmetic effect is only half the story. Hygroton and digitalis therapy helps her get back in the swing of things. Gives her a second wind. Gets rid of the extra pillow she needed for a good night's sleep. Now she even likes to take walks. Just for the fun of it!

When her troubles began, Mrs. Larson thought they were the signs of the change of life. It's a change all right, but one you can treat. And you can count on Hygroton to help keep her in public instead of in the hospital.

See preceding pages for brief summary of prescribing information.



Geigy

Geigy Pharmaceuticals
Division of Geigy Chemical Corporation
Ardsley, New York



Amebiasis

Sporadic cases of amebiasis continue to be a problem. The carrier rate of the pathogenic ameba, Entamoeba histolytica, is estimated to be

See article, page 562

5 to 10% in Florida, with certain lower socioeconomic groups in South Florida as high as 25%. Amebiasis is prevalent throughout the world, particularly in impoverished countries with inadequate water and food control. Symptomatic infection may appear years after initial exposure to carriers or following international travel.

The major continuing problem in the United States is in institutions for the mentally retarded, where prevalence rates ranging up to 70% may be found, and clinical illness is common. Studies of noninstitutional epidemics of amebiasis reveal that infections usually represent a breakdown of sanitary facilities with contamination of the water supply. Spread by food handlers and insects does occur, as does intrafamilial spread, but they do not pose a major problem in this country.

Intestinal amebiasis in nontropical areas is most often characterized by a mild recurrent diarrhea, but may range from an asymptomatic carrier to a fulminant dysentery.

While blood and mucus in the stool may suggest amebiasis, their absence does not exclude the diagnosis. Irritable colon, other infectious diarrheas, enteritis, ulcerative colitis and carcinoma of the colon can mimic amebiasis. Relapse is common without treatment, and relapse or recurrence of infection may also occur after treatment of amebic infection.

Nonspecific extraintestinal symptoms such as headaches, muscle and joint aches, fatigability and allergic skin disease may be associated with intestinal amebiasis. Dr. Crotzer points out in this issue of the Journal the frequency of intestinal amebiasis masquerading as a gynecological problem and emphasizes the need for routine proctoscopy. Intestinal amebiasis can also mimic liver disease by provoking a nonspecific hepatic inflammation without amebic invasion of the liver.

The most common extraintestinal amebic infection is amebic hepatitis and liver abscess with its sequelae—pleuropulmonary involvement and, rarely, amebic pericarditis. Amebic infections also in-

clude skin ulcers, particularly of the perineum, balanitis, peritonitis, brain abscess, pneumonia and urogenital involvement.

The laboratory diagnosis of amebiasis is often difficult. Freshly passed warm stools should be examined for the trophozoite of E. histolytica in loose stools and the cyst in formed stools. An inexperienced examiner will often mistake nonpathogenic Entamoeba coli for pathogenic Entamoeba histolytica. The amebae are more likely to be found in the mucus rather than the feces itself. Frequently, the infecting agent can be identified in material obtained by direct aspiration of intestinal ulcers. Barium enema examinations and antibiotics may cause disappearance of the protozoa, often for weeks.

Rectal biopsy is diagnostic in approximately 20% of cases, even when the mucosa appears normal. A hemagglutination test for E. histolytica is available at the Communicable Disease Center in Atlanta, Georgia. It is positive in extraintestinal infestation with demonstration of antibodies against E. histolytica in 96% of cases of amebic liver abscess. It is less useful in intestinal amebiasis. Demonstration of "chocolate pus" on aspiration of a liver abscess will most often, but not invariably, be due to amebiasis; frequently the organisms are not found in the pus and are found only in the abscess wall. Even without confirmatory evidence, if the clinical suspicion of amebiasis is strong, a therapeutic trial is recommended. Many physicians treat all patients with ulcerative colitis by giving a full course of antiamebal therapy.

There is no single effective amebicide. For this reason, combinations of drugs often are used. Repeated courses of treatment are frequently necessary. Acute amebic dysentery in adults may be treated with emetine, diiodohydroxyquin and tetracycline administered simultaneously. Emetine is given intramuscularly in a daily dose of 1 mg./kg., not to exceed 65 mg./kg./day until the dysentery is controlled, or for a maximum of 10 days. Patients receiving emetine should be at bed rest and have frequent EKG determinations since the drug has cumulative effects and may produce focal necrosis of cardiac muscle. Diiodohydroxyquin is given orally in a dose of 0.65 gm. three to four times daily for 20 days. Tetracycline in a dose of 500 mg. is given orally four times daily for 10 days. In the chronic asymptomatic case of amebic colitis diiodohydroxyquin is used singularly, 1.2 gm. daily for 21 days. In extraintestinal amebiasis, emetine and chloroquine are combined. The emetine is given, as previously outlined, for 10 days. Chloroquine in a dose of 1 gm. daily is given orally for the first two days and 0.5 gm. daily for the following 18 days. Recently, metronidazole has been shown to be effective in both forms of amebiasis, but further evaluation will be necessary. It is taken orally in a dose of 800 mg. three times daily.

The best treatment is prevention of infection by control of fecal contamination of water. Particularly in Florida, where camping is popular, physicians should advise the use of iodine liberating water purifiers for small scale use to eliminate amebae in impure water. One 20 mg. tetraglycine hydroperiodide tablet is used per pint of water for three minutes. Chlorine is not amebicidal.

Recently three separate papers from Florida, Texas and Australia have reported fatal meningoencephalitis due to the free living, soil ameba Hartmanella or Acanthamoeba. These organisms have generally been held to be nonpathogenic for man, although primary meningoencephalitis has been produced in experimental animals. Intranasal inoculation resulting from prolonged swimming in tepid lake water is the probable source of infection in man, and this route of inoculation also infects experimental animals. These organisms are sensitive to sulfadiazine.

Malcolm T. Foster Jr., M.D.
Gainesville

Acute Hemorrhagic Pancreatitis

The ever-expanding search for new drugs to alleviate or cure symptoms and disease will always be with us. Our new drugs are problem-free for

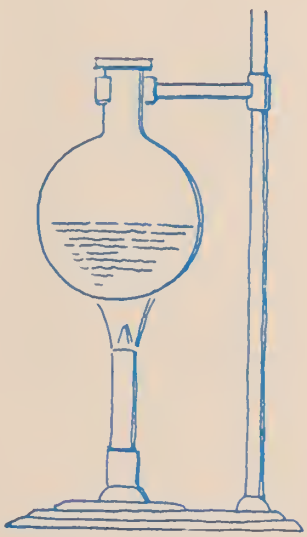
See article, page 564

a time. Expanding indications and use precipitate reports of problems caused by the drugs. Certainly we do not want to return to an era of ineffective medications. Chlorothiazide was introduced in 1957 and was followed by a large number of congeners. These agents are benzothiadiazine derivatives which act in some manner to inhibit the reabsorption of sodium by the renal tubules and increase excretion of sodium chloride and potassium.

Two cases of pancreatitis during pregnancy are discussed in this month's Journal. In a small number of patients on thiazine diuretics acute hemorrhagic pancreatitis has been reported to develop. Experimental evidence has shown that 50% of 20 patients treated with chlorothiazide had moderate elevation of serum amylase. Cornish et al. also noted 7.1% of 300 mice treated with chlorothiazide for several months showed inflammatory and necrotic changes in the pancreas.

The sulfonamide diuretics are invaluable in the management of edema during pregnancy, hypertension and chronic congestive heart failure. This presents the physician with a dilemma. It seems to me that the only satisfactory solution is to use the drugs wisely, to be well informed and to know the drug one is using. Only in this way can we apply the pharmacologist's discoveries in the best interest of all our patients.

J. Robert Qualey, M.D.
Tampa





The meaningful pause. The energy it gives. The bright little lift. Coca-Cola with its never too sweet taste, refreshes best. Helps people meet the stress of the busy hours. This is why we say **things go better with Coke**
TRADE-MARK ®

HIGHLAND HOSPITAL

ASHEVILLE, NORTH CAROLINA

Founded 1904

A DIVISION OF THE DEPARTMENT OF PSYCHIATRY
OF DUKE UNIVERSITY

Accredited by the Joint Commission on Accreditation and Certified for Medicare

Complete facilities for evaluation of and intensive treatment of psychiatric patients, including individual psychotherapy, group therapy, psychodrama, electro-convulsive therapy, Indoklon convulsive therapy, drugs, social service work with families, family therapy, and an extensive and well organized activities program, including occupational therapy, art therapy, athletic activities and games, recreational activities and outings. The treatment program of each patient is carefully supervised in order that the therapeutic needs of each patient may be realized.

Complete modern facilities with 85 acres of landscaped and wooded grounds in the City of Asheville.

Brochures and information on financial arrangements available
Contact: Mrs. Elizabeth Harkins, ACSW, Coordinator of Admissions

or

Charles W. Neville, Jr., M.D.
Assistant Professor of Psychiatry and Medical Director
Area Code 704 - 253-2761

Look how many ways

Thorazine®

brand of

chlorpromazine

can help

	Tranquilizer	Potentiator	Antiemetic
Agitation	●		
Alcoholism	●		●
Anxiety	●		
Cancer patients	●	●	●
Severe neurodermatitis	●		
Drug addiction withdrawal symptoms	●		●
Emotional disturbances (moderate to severe)	●		
Nausea & vomiting	●		●
Neurological disorders	●		
Obstetrics	●	●	●
Pain	●	●	●
Pediatrics	●	●	●
Porphyria	●	●	
Psychiatric disorders	●		
Hiccups—refractory	●		
Senile agitation	●		
Surgery	●	●	●
Tetanus	●	●	

'Thorazine' is useful as a specific adjuvant in the above named conditions.

The following is a brief precautionary statement. Before prescribing, the physician should be familiar with the complete prescribing information In SK&F literature or *PDR*. *Contraindications:* Comatose states or the presence of large amounts of C.N.S. depressants. *Precautions:* Potentiation of C.N.S. depressants may occur (reduce dosage of C.N.S. depressants when used concomitantly). Antiemetic effect may mask other conditions. Possibility of drowsiness should be borne in mind for patients who drive cars, etc. In pregnancy, use only when necessary to the welfare of the patient. *Side Effects:* Occasionally transitory drowsiness; dry mouth; nasal congestion; constipation; amenorrhea; mild fever; hypotensive effects, sometimes severe with I.M. administration; epinephrine effects may be reversed; dermatological reactions; parkinsonism-like symptoms on high dosage (in rare instances, may persist); weight gain; miosis; lactation and moderate breast engorgement (in females on high dosages); and less frequently cholestatic jaundice. Side effects occurring rarely include: mydriasis; agranulocytosis; skin pigmentation, lenticular and corneal deposits (after prolonged substantial dosages).

For a comprehensive presentation of 'Thorazine' prescribing information and side effects reported with phenothiazine derivatives, please refer to SK&F literature or *PDR*.

Smith Kline & French Laboratories SK&F

DIARRHEA



CANTIL®
(mepenzolate bromide)

Diarrhea, one of the most vexing symptoms of common G. I. disorders can often be curbed with Cantil (mepenzolate bromide), bringing welcome relief to the harassed patient. Relatively specific for the hyperactive colon, it helps reduce diarrhea, pain and spasm with minimal effect on other viscera. Cantil (mepenzolate bromide) is indicated whenever these symptoms are associated with irritable colon, gastroenteritis, diverticulitis, and mild to moderate ulcerative colitis.

It is an anticholinergic drug without narcotic properties. Side effects are usually mild.

LAKESIDE

IN BRIEF: One or two tablets three times a day and one or two at bedtime usually provide prompt relief. Cantil with Phenobarbital may be prescribed if sedation is required.

Dryness of the mouth, blurring of vision, constipation, nausea, vomiting, bloating and dizziness may occur but are usually mild and transitory. Urinary retention is rare. Caution should be observed in prostatic hypertrophy — withhold in glaucoma. Contraindicated in patients sensitive to phenobarbital and/or Cantil (mepenzolate bromide); in toxic megacolon, obstruction of G. I. or G. U. tract.

SUPPLIED: CANTIL (mepenzolate bromide) — 25 mg. per scored tablet. Bottles of 100 and 250. CANTIL with PHENOBARBITAL — containing in each scored tablet 16 mg. phenobarbital (warning: may be habit forming) and 25 mg. mepenzolate bromide. Bottles of 100 and 250.

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201



Special Article

On the Profession of Medicine

GLENN W. GEELHOED

Editor's Note: This article was the first place winner in the 1966 Norman A. Welch, M.D., Medical Ethics Essay Contest sponsored by the Judicial Council of the American Medical Association. Glenn W. Geelhoed, the author of this prize-winning essay, entered the University of Michigan Medical School in 1964 where he has been a member of the Honors Medical Program, an academic organization for advanced work, and also a member of the Special Studies Program to encourage research. T.M.

What does it mean to follow a profession? Medicine is widely called a profession, yet the term profession connotes several different meanings. It would be interesting to note what meanings the term has and in what senses they are applied to medicine. I should like to analyze and describe four uses of the term profession and examine implications the applicable meanings have for the ethics of the medical profession.

First of all, the term profession can mean the following of an occupation as a means of livelihood or for gain. In this sense a profession is simply a means for making a living. Uses of the term in this sense are common, as in a professional pugilist, or a professional driver who makes a living by driving a truck. That there is nothing innately noble about the term profession when so used is seen in its use to describe criminals, such as a professional safe-cracker. Another example can be noted in its application to certain women who are said to practice the "world's oldest profession."

The word professional can also imply a certain expert mastery or competence in almost any field. There it is used as the opposite of "amateur." The popular advertising motto "the best is always pro" is an illustration of the term in this sense. A combination of special abilities is implicit in this sense of the word and standards of behavior and achievement are concomitant features. Several professions by the first criterion of the term "means for making a living" have acquired a subspecialized meaning in the second sense of the term by superimposing the adjective "learned." The "learned" professions have an inherent set of requirements that place them beyond the practice of anyone who might wish to make a living by them. There is also a recognized method for achieving the skills or knowledge that set professions apart from other occupations. No qualitative difference has separated the second sense from the first, but merely a quantitative level of know-how.

A third sense in which the term profession is used involves following as a business an occupation ordinarily engaged in as a pastime, or making a business of an office not properly to be regarded as a business. Examples of the former would be golf, ski, chess, or tennis pros; an example of the latter would be a "professional politician." In the former case there is a note of dilettantism, a "playing at" an occupation as though it were a hobby in which one had acquired sufficient proficiency to warrant payment. The latter case evinces a betrayal of a trust, a taking advantage of a responsibility to one's own profit.

And last, there is the sense of the term profession that means a calling, an avowal or declaration that one "stands for something." The "professor" is a defender of principles to which he adheres. The term profession is used in religion to refer to that outward declaration of a faith in doctrine and ideals, using the term in this same sense.

Of these four meanings, which applies to the profession of medicine? Since almost all physicians depend upon the practice of their art for

their livelihood, medicine is a profession in the first sense. As in the other crafts and trades included in the first sense, the physician makes a living by offering his commodity of medical service as an item of exchange. Unlike the majority of the crafts which are its fellows under the first criterion, medicine is a profession that commands more than a living; it has a high return value that is often the first thing that strikes the eye of the young aspirant. The respect and reward that are given to the doctor as artisan (cf. *der Arzt*) may be due to the demand and value of his commodity as estimated by the consumer, or it may follow additionally from the higher requirement levels seen under the second sense of the term profession.

By the second criterion, medicine is indeed a learned profession, and one that requires a specialized expertness of no mean achievement. This refinement of the profession is but a quantitative step above the first level; however, the division is not a qualitative one but merely a measure of cleverness. A technician can function at whatever level he seeks, since there is no morality that necessarily advances with the sophistication of technology. There are technicians (who are professional in both first and second senses) in medicine who wash glassware, technicians who draw blood, and some who remove appendices, all within the same spectrum of measured skill.

The third sense of the term profession enters into the consideration of those who consider a profession "the gentlemanly thing to do." A profession in this third sense is what one follows to avoid doing manual labor, and offers the dilettante a respectable perch from which to view the world and select items for smattering. A popular version of this among young physicians is medical gamesmanship. More despicable than those who play at medicine are those who play it for their own advantage and enjoy the peculiar type of power with which physicians are entrusted.

It is only when we reach the fourth and last sense of the term profession that we face what it is that medicine stands for. A hard look at the practice of medicine while standing upon this highest rung of the ladder in the definition of their profession may convince many physicians that they do not have a profession in this final sense, for in medicine what is to profess? If medicine be a calling, to what are we called? For the ethical standards and goals medicine professes, some knowledge of the historical heritage that has contributed to the profession in this peculiar sense is necessary.

One of the earliest and still most articulate examination of the qualities that constitute the true profession of medicine is found in a Socratic dialogue in Plato's The Republic. Thrasymachus is inquiring into reasons why it is that men work. He has just decided that all men, including the ruler in even the ideal state, would be motivated only by self-interest in the power that would accrue to the person in the profession and in the living he would make. Socrates stops him short:

> "Enough of this banter. . . . Tell me this: Is the physician of whom you spoke as being strictly a physician, a maker of money, or a healer of the sick? Take care you speak of the *genuine* physician."
>
> "A healer of the sick," replied Thrasymachus.

But, Socrates now asks, aren't you neglecting the fact that each of the individuals who practices medicine has a primary interest in making a living, as in the first sense of the term profession?

> "Has not each of these persons an interest of his own?"
>
> "Certainly."
>
> "And is it not the proper end of their art to seek and procure what is for the interest of each of them?"
>
> "It is."

Through further questions, Socrates develops an alternative thesis that the goal of medicine is in the practice of it; that the refinement and expertness of the art is the goal to be pursued and enjoyed as an end in itself. Taking pleasure in the expertness of medical practice would qualify it as a profession in the second sense of the term. Or *ars gratia artium* might be the self-sustaining energy loop that would justify medicine's definition as a profession to the casual practitioner who is seeking a profession in the third sense.

> "Have the arts severally any other interest to pursue than their own highest perfection?"
>
> "What does your question mean?"
>
> "Why, if you were to ask me whether it is sufficient for a man's body to be a body, or whether it stands in need of some-

thing additional, I should say, certainly it does. To this fact the discovery of the healing art is due, because the body is defective, and it is not enough for it to be a body. Therefore, the art of healing has been put in requisition to procure what the interests of the body require. Should I be right, think you, in so expressing myself, or not?"

"You would be right."

"Well then, is the art of healing itself defective, or does any art whatever require a certain additional virtue; as eyes require sight, and ears hearing, so that these organs need a certain art which shall investigate and provide what is conducive to these ends: is there, I ask, any defectiveness in an art as such, so that every art should require another art to consider its interests, and this other provisional art a third, with a similar function, and so on, without limit? Or will it investigate its own interest?". . .

"Apparently it is so," he replied.

"Then the art of healing does not consider the interest of the art of healing, but the interest of the body."

"Yes."

Since it appears that our limitation of the profession of medicine to any of the first three senses of the term is no longer tenable, for what good does medicine stand?

"Well, but you will grant, Thrasymachus, that an art governs and is stronger than that of which it is the art."

Thrasymachus assented with great reluctance to this proposition.

"Then no science investigates or enjoins the interest of the stronger, but the interest of the weaker, its subject."

To this also he at last assented, though he attempted to show fight about it.

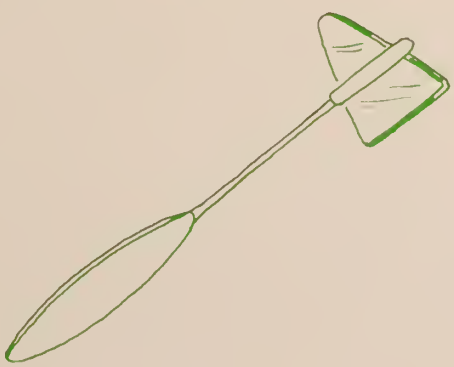
"Then is it not also true, that no physician, insofar as he is a physician, considers or enjoins what is for the physician's interest, but that all seek the good of their patients? For we have agreed that a physician strictly so called, is a ruler of bodies, and not a maker of money; have we not?"

Thrasymachus agreed that we had.

Socrates concludes with the ethical principle that has dominated the subsequent tradition of medicine. We distinguish man *qua* wage-earner from man *qua* professor of medicine. Only in the fourth sense of the term does medicine rise to a truly noble profession. And what is the good that medicine professes? The good of its objects which are other than they who practice the art and which is external to the art itself. And what are the objects of medicine's service? The patients, the society, in a word—man.

"And thus, Thrasymachus, all who are in any place of command, insofar as they are rulers, neither consider nor enjoin their own interest, but that of the subjects for whom they exercise their craft: and in all that they do or say, they act with an exclusive view to *them*, and to what is good and proper for *them*."

Mr. Geelhoed, 2205 Hubbard Street, Ann Arbor, Mich. 48105.







Posed by professional model

I'm supposed to get up and do things?

With my heart?

It's entirely natural—and may even be desirable—for the cardiovascular patient to be somewhat anxious about himself.

But when anxiety leads to unreasonable self-imposed limitations and restrictions . . . when it aggravates cardiovascular symptoms . . . when it interferes with restful sleep, measures to help alleviate the anxiety are probably in order.

One measure, of course, is reassurance. Another, adjunctive measure, is EQUANIL (meprobamate).

Over a decade of experience has shown that EQUANIL (meprobamate) is generally well tolerated as well as effective. Side effects are usually limited to transient drowsiness; serious, therapy-interrupting side effects are rare.

Cautions: Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use may result in dependence or habituation in susceptible persons—as ex-addicts, alcoholics, severe psychoneurotics. After prolonged high dosage, drug should be withdrawn gradually to avoid possibly severe withdrawal reactions including epileptiform seizures. Side effects include drowsiness and, rarely, allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute non-thrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever have been reported. Meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. Warn patients of possible reduced alcohol tolerance. Should drowsiness, ataxia, or visual disturbances occur, dose should be reduced. If symptoms persist, patients should not operate vehicles or dangerous machinery. A few cases of leukopenia, usually transient, have been reported following prolonged dosage. Other blood dyscrasias—aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis and hemolytic anemia—have occurred rarely, almost always in the presence of known toxic agents. One fatal case of bullous dermatitis following intermittent use of meprobamate with prednisolone has been reported. Prescribe very cautiously for patients with suicidal tendencies. Suicidal attempts should be treated with immediate gastric lavage and appropriate supportive therapy.

Contraindications: History of sensitivity to meprobamate.

Composition: Tablets, 200 mg. and 400 mg. meprobamate. Coated Tablets, WYSEALS® EQUANIL (meprobamate) 400 mg. Continuous-Release Capsules, EQUANIL L-A (meprobamate) 400 mg.

American Hospital Formulary Service Category No. 28:16.08

A quality controlled product of
Wyeth Laboratories Philadelphia, Pa.

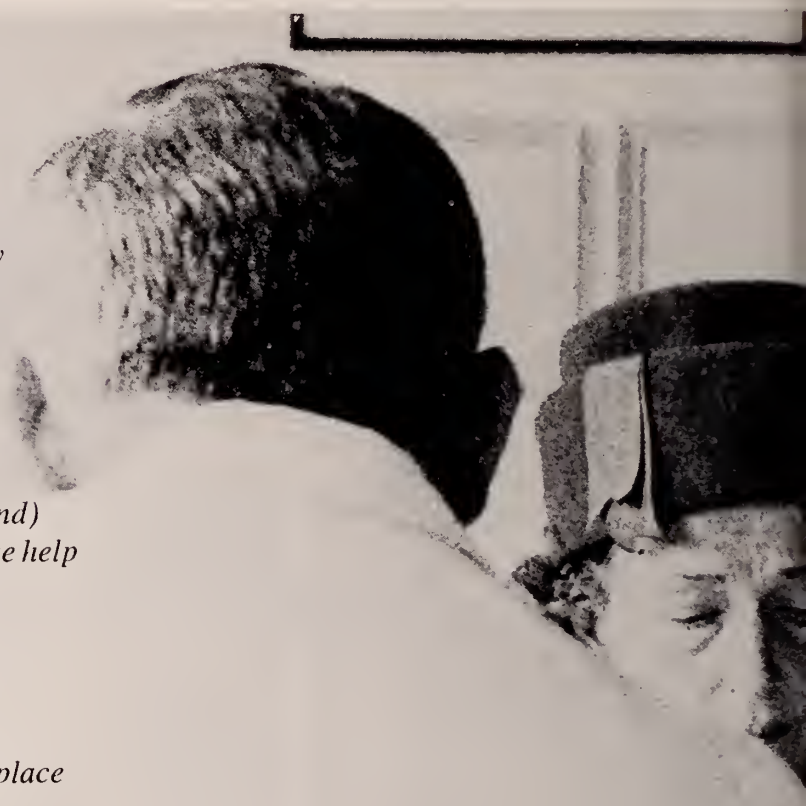
to help relieve anxiety and tension occurring alone or secondary to organic disease

Equanil® (meprobamate)

Wyeth® SERVICE TO MEDICINE

The Mediatric Age:

There is a growing senescent body of people on their way to malignant inactivity, who sorely need your interest and direction to help them back to a more active and useful life. There are medicines too, designed to help. One such has proved useful in clinical practice.



"A steroid-nutritional compound (Mediatric) was used in 100 patients to relieve some of the symptoms caused by degenerative changes of aging... This therapy resulted in improvement of 75 per cent of the patients..."

McNeill, A. J.: Clin. Med. *8*:518 (Mar.) 1961.

"Mediatric (steroid-nutritional compound) capsules, one a day, seem to give definite help to debilitated patients."

Arnold, E. T., Jr.: Geriatrics *12*:612 (Oct.) 1957.

"Nutritional and hormone bolstering of function in the aged may have a useful place in geriatrics."

Morgan, A. F.: Gerontologist *2*:77 (June) 1962.

"In diets which for any reason are restricted in calories, enough of these substances (B vitamins) may not be supplied... The use of B and C vitamin supplements may then be justified and indeed may be necessary."

Morgan, A. F.: Gerontologist *2*:77 (June) 1962.

"Intensive nutritional therapy is necessary, especially in elderly people, to correct dietary deficiencies created by large losses of protein, vitamins and other nutrients."

Riccitelli, M. L.: J. Am. Geriatrics Soc. *12*:489 (May) 1964.

Mediatric®

Designed for the "metabolically spent"

Nutritional reinforcement for those who can't – or won't – eat properly...balanced amounts of estrogen and androgen to counteract declining gonadal hormone secretion and its sequelae of premature degenerative changes...mild antidepressant for a gentle "mood" uplift...

The estrogen component in MEDIATRIC is PREMARIN® (conjugated estrogens—equine), the natural estrogen most widely prescribed for its superior physiologic and metabolic benefits.

MEDIATRIC also provides *nutritional reinforcement—blood-building factors and vitamin supplementation.* It contributes a *gentle "mood" uplift* through methamphetamine HCl.

Three different dosage forms—Liquid, Tablets, and Capsules—offer convenience and variety.

MEDIATRIC Liquid

Each 15 cc. (3 teaspoonfuls) contains:

*Conjugated estrogens—equine (Premarin®)	0.25 mg.
Methyltestosterone	2.5 mg.
Thiamine HCl	5.0 mg.
Cyanocobalamin	1.5 mcg.
Methamphetamine HCl	1.0 mg.

Contains 15% alcohol

MEDIATRIC Tablets and Capsules

Each MEDIATRIC Tablet or Capsule contains:

*Conjugated estrogens—equine (Premarin®)	0.25 mg.
Methyltestosterone	2.5 mg.
Ascorbic acid	100.0 mg.
Cyanocobalamin	2.5 mcg.
Intrinsic factor concentrate	8.0 mg.
Thiamine mononitrate	10.0 mg.
Riboflavin	5.0 mg.
Niacinamide	50.0 mg.
Pyridoxine HCl	3.0 mg.
Calc. pantothenate	20.0 mg.
Ferrous sulfate exsic.	30.0 mg.
Methamphetamine HCl	1.0 mg.

*Orally active, water-soluble conjugated estrogens derived from pregnant mares' urine and standardized in terms of the weight of active, water-soluble estrogen content.

MEDIATRIC helps keep the older patient alert and active; helps relieve general malaise, easy fatigability, vague pains in the bones and joints, loss of appetite, and lack of interest usually associated with declining gonadal hormone secretion.

CONTRAINDICATION: Carcinoma of the prostate, due to methyltestosterone component.

WARNING: Some patients with pernicious anemia may not respond to treatment with the Tablets or Capsules, nor is cessation of response predictable. Periodic examinations and laboratory studies of pernicious anemia patients are essential and recommended.

SIDE EFFECTS: In addition to withdrawal bleeding, breast tenderness or hirsutism may occur.

SUGGESTED DOSAGES: *Male and female:* 3 teaspoonfuls of Liquid, 1 Tablet, or 1 Capsule, daily or as required.

In the female: To avoid continuous stimulation of breast and uterus, cyclic therapy is recommended (3 week regimen with 1 week rest period—Withdrawal bleeding may occur during this 1 week rest period).

In the male: A careful check should be made on the status of the prostate gland when therapy is given for protracted intervals.

SUPPLIED: No. 910 – MEDIATRIC Liquid, in bottles of 16 fluidounces and 1 gallon. No. 752 – MEDIATRIC Tablets, in bottles of 100 and 1,000. No. 252 – MEDIATRIC Capsules, in bottles of 30, 100, and 1,000.



Mediatric®

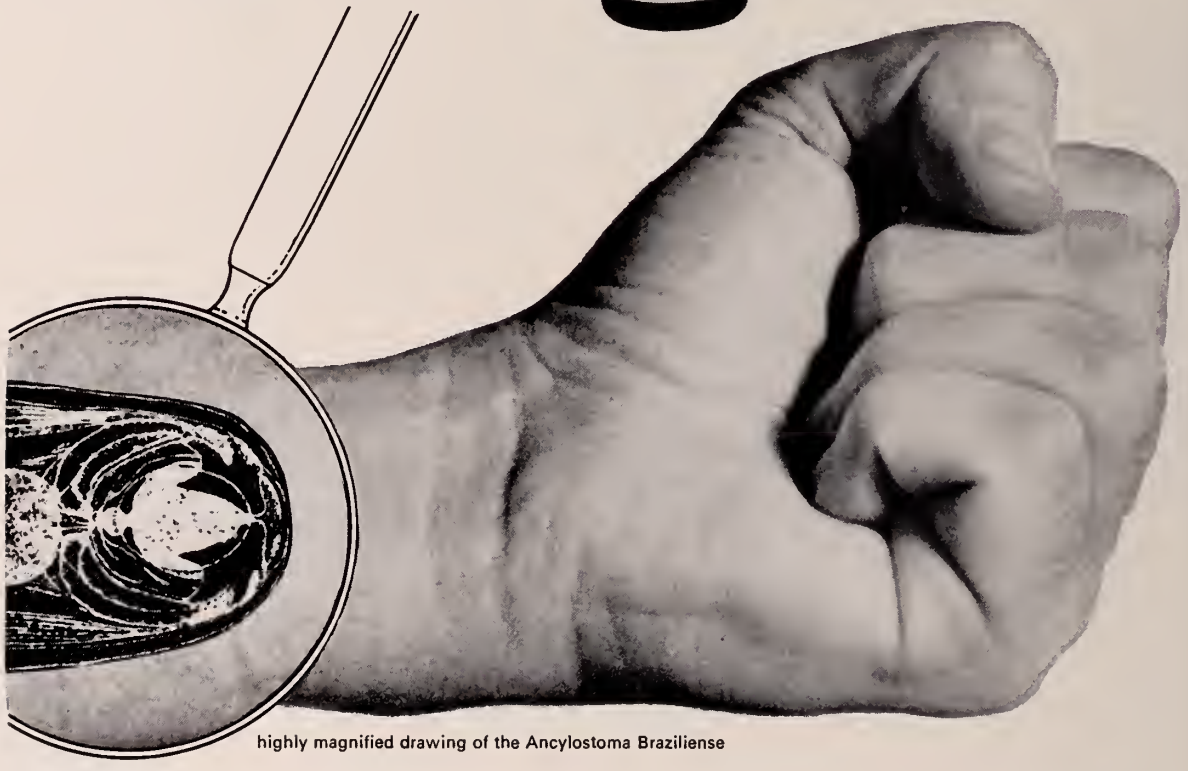
steroid-nutritional compound

AYERST LABORATORIES, NEW YORK, N.Y. 10017 • Montreal, Canada

6636

Gebauer's Ethyl Chloride stops creeping eruption cold





highly magnified drawing of the Ancylostoma Braziliense

Creeping eruption is ugly, uncomfortable, and persistent. And, in Florida, it is seen with considerable frequency.

Creeping eruption is caused by the larvae of the dog and cat hookworm, *Ancylostoma Braziliense*. The larvae of this parasite burrow between the superficial layers of the skin, causing much discomfort and characteristic angry eruptions.

Happily, Gebauer Ethyl Chloride sprayed on the affected area for 30 seconds to one minute will usually kill the offending larvae. In difficult cases, it may be necessary to spray for a period of up to two minutes. Improvement and cure generally follow a comparatively few applications.

Next time you treat creeping eruption, treat it with Gebauer Ethyl Chloride. Also highly effective as a topical anesthetic for minor surgery, as in removal of splinters, incision of boils and whitlows, and to alleviate needle pain. May be used for relief of pain such as first and second degree burns, bee stings, sprains and muscle spasm.

GEBAUER PRODUCTS AVAILABLE AT

CORAL GABLES: Surgical Equipment Co. JACKSONVILLE: Central Medical & Surgical Supply • Hermax Corporation • Medical Supply Co. of Jacksonville • Surgical Supply Co. MIAMI: Amedic Surgical Co. • Florida Physicians Supply • Medical Supply Co. ORLANDO: Anderson Surgical Supply Co. • Medical Supply Co. ST. PETERSBURG: Anderson Surgical Supply Co. SARASOTA: Anderson Surgical Supply Co. TALLAHASSEE: Southeastern Surgical Supply Co. TAMPA: Anderson Surgical Supply Co. • Medical Supply Co. • Southern Surgical Supply Co. • Surgical Equipment Co. of Florida. WEST PALM BEACH: Medical Associates Corp. • Medical Supply Co.

OR YOUR LOCAL PHARMACY

Gebauer's

GEBAUER CHEMICAL COMPANY
9410 St. Catherine Ave. • Cleveland, Ohio 44104

Letter to AMA Insurance Participants Branded Confusing by Dr. Appel

Letters now being circulated to participants in the American Medical Association Members Group Disability Insurance Program may have the effect of confusing and misleading physicians, said James Z. Appel, M.D., former AMA president and chairman of the Board of Trustees Advisory Committee on the Disability Program.

Dr. Appel said the letters have been distributed by the programs present administrator after the board voted to revise the program and said it will appoint an administrator for the program as of Sept. 1, 1967 (the AMA News, March 6. 1967).

"I can readily understand the administrators 'hard sell' tactics in trying to retain the AMA program," Dr. Appel said. "The program provided his firm with more than $700,000 per year in commissions.

"The fact is that the existing program has been a tremendous headache," Dr. Appel explained. "Now," he continued, "the administrator is attempting to generate pressure upon the Board by appealing directly to insured members of the AMA.

"The Board of Trustees has given many hours and even days of study to the disability insurance program. It has considered and accepted the recommendations of a committee consisting of myself and four delegates who are knowledgeable and have had experience in insurance matters. Both the Board and the Committee have been assisted by a professional actuary."

Dr. Appel pointed out that in revising the program, the Board had followed a recommendation by the House of Delegates that the program not be set up so that it could be used as a retirement program. The revisions state that physicians covered under the present program are automatically eligible for coverage under the new contract with the exception of those above the age of 70. Furthermore, premiums will be lower for young physicians and higher for M.D.'s in older age groups.

Confusion now exists, Dr. Appel said, about these issues:

When the program began in 1962, physicians were offered "lifetime benefits" for both sickness and accident disabilities and the promise that "you may continue your insurance as long as you remain in active practice."

Dr. Appel explained that this does not mean lifetime coverage and that the application blanks for the program guaranteed coverage only through Aug. 31, 1967.

The Board of Trustees in revising the program rejected a bid which would have continued it under its present benefit and premium structure because it "does not believe that the association should endorse an unsound program and does not believe that it can or should commit the present

or future officers to participation in the continuous promotion of an unsound program."

Dr. Appel explained that in view of widespread testimony by actuaries and insurance experts that this structure was actuarily unsound the board rejected it.

The increase in premiums for physicians over the age of 50 amount to $20 per year for those in the 50-59 group and $40 per year for those 60-69.

Dr. Appel explained that this change was needed to make the program actuarily sound and noted that it would be partially offset by the reduction in premiums for younger M.D.'s.

The exclusion of those over age 70 from coverage under the revised program has been termed "unnecessary."

Dr. Appel explained that from an actuarial standpoint disability insurance coverage for the over 70 group would require premiums of from $700 to $800 annually. Premiums of this magnitude might result in severe "adverse selection" according to AMA's insurance consultant.

Arch Parker, vice president of Continental Casualty Co., the present carrier, also pointed out that "the present administrator of the program has stated that all insured disabled and receiving benefits on Sept. 1, 1967, upon recovering and returning to active practice at a later date, must submit a written application for the new policy and the issuance of such policy will be subject to the company's approval of the written application."

"This statement is absolutely false," Parker said. "The actual facts are that any such disabled doctor under the age of 70 returning to active practice after Sept. 1, 1967, will be automatically issued coverage when he makes application within 60 days after his return to practice."

Committee on Rural Health

Editor's Note: The following item is a report by Dr. J. Basil Hall, chairman of the FMA Committee on Rural Health, presented before the Joint Meeting of the AMA Council on Rural Health and the State Medical Association Rural Health Chairmen, March 9, 1967, Charlotte, N. C.

T.M.

In 1951 the Florida Medical Association, along with the Florida Agricultural Extension Service and the Florida State Board of Health, initiated a rural educational program in Florida. Later, the Florida Farm Bureau Federation joined the program. Literature, radio programs, films and speakers on health subjects were made available to farm and other rural groups through the cooperating organizations.

In 1956 the Association participated, along with the other founding organizations, in establishment of the Florida Committee on Rural Health, a joint, statewide planning body which has been highly successful since its formation. The primary objective of the Committee was and is to obtain optimum health for all Florida rural citizens through common planning of the member organizations. Dr. Francis T. Holland of Tallahassee, currently vice chairman of the American Medical Association Council on Rural Health, was first and founding chairman of the Committee. Subsequently, several other statewide organizations have been added to the Committee by invitation. The present membership consists of the Florida Agricultural Extension Service, Florida Farm Bureau Federation, Florida Medical Association, Florida State Board of Health, Florida State Dental Society, Florida State Pharmaceutical Association and Florida State Veterinary Medical Association.

The Committee consists of two official voting representatives appointed annually by each organization. In addition, the members of rural health committees, or their equivalent, of member organizations, serve as ex-officio members of the Committee. While they may not vote or hold office, they may serve as working members of subcom-

mittees. A chairman and vice chairman are elected each year from among the Committee's membership. Meetings are held semiannually and on call.

The Committee, at its establishment, adopted the following purposes:

1. Study rural and semi-urban health conditions in Florida.
2. Recommend improvements through appropriate organizations.
3. Coordinate planning on a state level.
4. Advise upon health matters when requested.
5. Promote understanding between rural and urban groups.
6. Encourage the formation of local health committees when feasible.

The Committee is characterized as a cooperative effort to accomplish a common purpose by utilizing the resources of its member organizations.

Although the Florida Medical Association for many years has had a standing Committee on Rural Health, its primary activity is in working through and with the Florida Committee on Rural Health. The Association is proud to have had a part in formation of the Florida Committee on Rural Health and to have shared in its many accomplishments for the benefit of the people in Florida's widespread rural areas. Very briefly, some of the major accomplishments over the years are in the areas of antibiotics and other additives in agriculture; poison control and safety, particularly with agricultural chemicals; food faddism; diseases transmitted from animals to man; health services to migrant agricultural laborers and fluoridation.

The Florida Committee on Rural Health has organized itself into five subcommittees to carry out its primary functions and activities. Each subcommittee is unrestricted in size and is composed of those Committee members who are especially qualified and/or are interested in the particular subject. Each has formulated guidelines for its objectives and activities which were adopted by the entire Committee. The present subcommittees are entitled Agricultural Migrants, Biological and Chemical Additives in Agriculture, Dental Health, Health Insurance and Government Health Services, and Nutrition Education. New subcommittees are created as needs and program emphasis change.

The current chairman of the Committee is Dr. Joe N. Busby, associate director of the Agricultural Extension Service of the University of Florida at Gainesville. The vice chairman is Dr. George W. Karelas, a practicing "country GP" in Newberry, Florida. In its most recent meeting, held December 8, the Committee celebrated its first decade of service by an on-the-spot visit to familiarize its members with the workings of a modern rural county health department, that of Clay County, Green Cove Springs, Florida.

The Florida Committee on Rural Health, along with the Florida Medical Association and its other member organizations, looks forward to an increasingly active second decade of coordinated service to the people of Florida.



P. L. DODGE MEMORIAL HOSPITAL

M. G. Isaacson, M.D.
Medical Director
1861 N.W. South River Drive
Miami, Florida
Phone 379-1448

A nonprofit-voluntary hospital for the treatment of nervous and mental disorders and the problems of drug addiction and alcoholic habituation. Modern diagnostic and treatment procedures including—Psychotherapy, Insulin, & Electroshock, when indicated. Adequate facilities for recreation and out-door activities. Admissions are made without regard to race, color or national origin.

Information on request

Member NAPPH, American Psychiatric Assn., & American Hospital Assn.

1967 Florida State Science Fair Awards

Ronald Stephen Hencin, a Melbourne High School senior, was winner of the Florida Medical Association's First Place Senior Division medical award in the 1967 Florida State Science Fair held April 6-8 in Miami. For his scientific efforts, Mr. Hencin received a $1,000 medical scholarship from the Florida Medical Foundation and a $100 savings bond from the Florida Medical Association. The winning exhibit was entitled "Separation of Mammalian Immunological Capacities: A Functional Equivalent of the Avian Bursa of Fabricius."

First Place Junior Division winner was Lee Carlson, a ninth grader at West Miami Junior High School. Mr. Carlson received a $50 savings bond for his project entitled "Biotin Deficiency in Rats."

Honorable mention prizes consisting of $25 savings bonds presented by the FMA Woman's Auxiliary were awarded to Martha Kathryn Watford, Graceville High School; Thomas Hill Crosby, Melbourne High School; Brian S. Kushman, Miami Beach Senior High School, and Richard B. Rosen, Coral Gables Senior High School.

The First Place awards were presented at an awards assembly April 7 in Miami's Bayfront Auditorium by Dr. Franklin J. Evans, Speaker of the House of Delegates. The runner-up prizes were awarded by Mrs. Willard L. Fitzgerald of Miami, past president of the FMA Woman's Auxiliary.

The Association's judging team, which studied 61 exhibits before arriving at final selection of winners, consisted of Drs. Carl E. Balli, Francis N. Cooke, James J. Hutson and Daniel L. Seckinger, all of Miami.



Dr. Franklin J. Evans, Speaker of the House of Delegates, congratulates 1967 Florida State Science Fair First Place Florida Medical Association award winners (left to right) Lee Carlson, West Miami Junior High School, and Ronald Stephen Hencin, Melbourne High School.

Don't let monilia cut broad-spectrum therapy short...

start with Tetrex-F®

tetracycline phosphate complex-nystatin

Use of broad-spectrum antibiotics can cause fungal overgrowth in the alimentary tract... and give rise to symptoms so troublesome that therapy must be prematurely stopped. Tetrex-F (tetracycline phosphate complex-nystatin) helps you circumvent this problem.

The nystatin can prevent overgrowth of monilia; the phosphate complex delivers tetracycline to the blood rapidly. Side effects are infrequent.

High-Risk Patients

Tetrex-F (tetracycline phosphate complex-nystatin) is especially useful in patients most susceptible to fungal overgrowth during tetracycline therapy: (1) the elderly or debilitated, (2) young children, (3) the diabetic, (4) those on long-term tetracycline therapy, (5) those on steroid therapy, (6) those who have had moniliasis before, and (7) pregnant patients with a history of monilial vaginitis.

When you start with economical Tetrex-F (tetracycline phosphate complex-nystatin), you can complete the full course of broad-spectrum therapy with less chance of losing control elsewhere. A good start for a healthy finish.

PRESCRIBING INFORMATION. For complete information consult Official Package Circular. *Indications:* Infections of respiratory, gastrointestinal and genitourinary tracts and skin and soft tissues due to tetracycline-sensitive organisms, in patients with increased susceptibility to monilial infections. *Contraindications:* The drug is contraindicated in patients hypersensitive to its components. *Warnings:* Photodynamic reactions have been produced by tetracyclines. Natural and artificial sunlight should be avoided during therapy. Stop treatment if skin discomfort occurs. With renal impairment, systemic accumulation and hepatotoxicity may occur. In this situation, lower doses should be used. Tooth staining and enamel hypoplasia may be induced during tooth development (last trimester of pregnancy, neonatal period and childhood). *Precautions:* Bacterial superinfections may occur. Infants may develop increased intracranial pressure with bulging fontanels. In gonorrheal therapy, serologic tests for syphilis should be conducted initially and monthly for 3 months. *Adverse Reactions:* Glossitis, stomatitis, nausea, diarrhea, flatulence, proctitis, vaginitis, dermatitis, and allergic reactions may occur. *Usual Adult Dosage:* 1 capsule q.i.d. Continue for 10 days in Beta-hemolytic streptococcal infections. Administer one hour before or two hours after meals. *Supplied:* Capsules, bottles of 16 and 100. Each capsule contains tetracycline phosphate complex equivalent to 250 mg. tetracycline HCl activity and 250,000 units of nystatin. For Oral Suspension, 125 mg. tetracycline and 125,000 u. nystatin/5 ml., 60 ml. bottles.

BRISTOL

BRISTOL LABORATORIES
Division of Bristol-Myers Company
Syracuse, New York 13201



Perhaps there have been times when you wanted to prescribe erythromycin and triple sulfas for little patients. Now you can—with a choice of two new fine-tasting pediatric forms.

New–Two Pediatric Forms of Erythromycin and Triple Sulfas





ERYTHROCIN®-SULFAS Chewable (Erythromycin ethyl succinate-trisulfapyrimidines chewable tablet)

In clinical trials[1,2], this orange-flavored tablet was given to 55 patients, aged four months to 18 years.

Diagnoses (multiple in some cases) represented a cross section of bacterial infections commonly seen in pediatric office practice.

Therapy was given from three to 12 days, with an average of six days.

Of the 55 patients, 30 were reported cured within 72 hours, while 22 showed partial recovery within the same time, and subsequent clinical cure.

A clinical cure rate of 94.5%

ERYTHROCIN®-SULFAS Granules (Erythromycin ethyl succinate-trisulfapyrimidines granules for oral suspension)

87 patients were treated[1,2]—all children, ages four months to 15 years.

The diagnoses were multiple in some cases and were chiefly bacterial infections of the respiratory tract.

Dosage was maintained from three to 10 days; average treatment was five days. All of the ill children accepted the orange-flavored suspension favorably.

53 were clinically cured within 72 hours, while 32 showed partial relief within the same time, and subsequent clinical cure.

701358

A clinical cure rate of 97.7%

1. Case Reports on File, Dept. Clin. Development, Abbott Laboratories.
2. Polley, R.F.L., Use of Erythromycin-Sulfas in Office Practice, Western Med., 7:177, July, 1966.

ABBOTT

Brief Summary on next page

ERYTHROCIN®-SULFAS
Brief Summary

Contraindications: Known sensitivity to erythromycin or sulfonamides. Because of the possibility of kernicterus with sulfonamides, do not use in pregnancy at term, premature or newborn infants.

Warnings: As with other forms of sulfonamide therapy, carefully evaluate patients with liver or kidney damage, urinary obstruction, or blood dyscrasia. Deaths have been reported from hypersensitivity reactions and blood dyscrasias following use of sulfonamides. Perform blood counts and liver and kidney function tests if used repeatedly at close intervals or for long periods.

Precautions, Side Effects: Occasionally mild abdominal discomfort, nausea or vomiting may occur with erythromycin, generally controlled by reduction of dosage. Mild allergic reactions (such as urticaria and other skin rashes) may occur. Serious allergic reactions have been extremely infrequent. Use sulfonamides with caution in patients with a history of allergy. Assure adequate fluid intake to prevent crystalluria and institute alkali therapy if indicated. If overgrowth of nonsusceptible organisms occurs, withdraw the drug and institute appropriate treatment. If a patient should show signs of hypersensitivity, appropriate countermeasures (e.g. epinephrine, steriods, etc.) should be administered and the drug withdrawn.

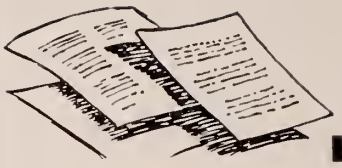
Adverse Reactions: Sulfonamide therapy may be associated with headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, skin rash, injection of the conjunctiva and sclera, petechiae, purpura, hematuria and crystalluria.

Side effects due to erythromycin are infrequent, but occasional abdominal discomfort, nausea, or vomiting, urticaria and other skin rashes may occur.

Supplied: The Granules for Oral Suspension come in bottles of 60 ml. and 150 ml. The Chewable tablets are in bottles of 50. Each 5-ml. teaspoonful of reconstituted Granules or each Chewable tablet provides erythromycin ethyl succinate equivalent to 125 mg. of erythromycin activity and 167 mg. of each of sulfadiazine, sulfamerazine and sulfamethazine.

701358

ABBOTT



Letters

Editor's Note: The following letters were received in response to Dr. J. Lawton Smith's article "A Physician's Bible Study" published in the March 1967 Journal.

T.M.

Dear Editor:

Dr. J. Lawton Smith's evangelical, rambling, inaccurate, piously arrogant, religious treatise which appeared in the March issue of the Florida Medical Journal was an affront to every Jewish physician who took the time to read it, as well as to many Gentile physicians whose concept of Christian theology is based more upon scholarship than emotion. It is inconceivable to me that an official organ of the state medical society, purporting to convey information of a scientific nature, would permit the image of Florida medicine to be so derogated by this incredibly anachronistic and unsophisticated attempt at fundamentalist proselytization. No matter how insensitive the author of the article might be to the feelings of others, I would have hoped that the editor of the Florida Medical Journal would have been perceptive enough to recognize the implications of the article and, in the interest of good taste, if nothing else, demurred from publishing it. I can only assume that it was published without having been read first.

If Dr. Smith decides to hire a tent to expedite conversions, which would certainly be a more appropriate platform than a medical journal, I sincerely hope that the Florida Medical Association is not listed as a sponsor.

PERITZ SCHEINBERG, M.D.
MIAMI

Dear Editor:

Several Miami physicians have sent me the article from your March issue by Dr. J. Lawton Smith on "The Triune God in the Old Testament."

I am familiar with your Journal because I once had the privilege of writing a greeting for you during the Christmas-Chanuko season.

I frankly cannot understand the reason for Dr. Smith's article in the Journal. It certainly has no relationship to medicine and reflects a great deal of misunderstanding of the Hebrew Bible. I notice with interest that the only authorities which Dr. Smith quotes are himself and another man, presumably a Jew, who has been trying to convert Jews to Christianity. This leads me to express the hope that Dr. Smith is a better physician that he is an authority on the Hebrew Bible.

Let me offer several examples: He quotes the Book of Proverbs, 30:4, in which it says, "What is his name and what is his son's name?" What Dr. Smith does not say or know is that the entire passage has no reference to God, but to man. The author of the lines is asking if there is any man who can fathom the mysteries of the universe or who has the views of God. The question is rhetorical because the simple understanding of the passage is that there is no such man.

Dr. Smith quotes Psalm 2:12 and interprets the phrase as "Kiss the Son." A knowledge of Hebrew tells us that the phrase should read "Do homage in purity."

Dr. Smith quotes Psalm 51, 10-12. This says, "Create in me a clean heart and renew a steadfast spirit within me." The prayer merely asks for a clean heart and a clean soul or mind.

I would suggest that your readers consult the works of outstanding Christian theologians for a proper understanding of Judaism. I refer to such great scholars as George Foote Moore, Travers Herford and James Parkes. I would also like to suggest that Dr. Smith consult some of the newer and wider accepted Christian translations of the Hebrew Bible. He will see in these new translations an awareness by the newest and best scholarship of what the Hebrew language really meant to say long ago.

Dr. Joseph R. Narot
Rabbi
Miami

Dear Editor:

Dr. J. Lawton Smith's special article on "A Physician's Bible Study" begins ostensibly to prove the "validity" of the Holy Trinity, or as he calls it, "Triune God," thru the Old Testament, and ends by the obliquity of asking the true Jewish believer to accept Christ as the Messiah Himself. Now that our county and other medical societies have rediscovered religion and begin each meeting by an invocation, why not such an article on indoctrination into Christianity by our state medical journal?

Would that such medical journals had burst out in anger against concentration camps, crematories, human skin lamp shades in Christian Germany; or in our own country, that despite the Trinity, religion accepted the duality of Black and White with separate churches in this same religion.

There can be scholarly interchange on the origin and the intent of Trinitarianism. This can be interpreted in other religions, not only the Christian, with quotations from the Old Testament as well. If Christ is seen as the leader of an armed movement for National Liberation, Paul, a Jew of the Dispersion, who having been released from emotional upheaval as a resurrector of Jesus, the crucified Messiah, and Emperor Constantine as the bestower of official recognition on the Christian church, you have a Trinity. Jesus sought political power to free the enslaved, the oppressed. Paul, having seen such a movement fail, redirected the mass movement to self examination, individual refurbishing, and an Emperor became the Messiah to bring into being what his predecessor had tried to abort by executing its founder! This dialectic of history is not extraordinary.

We are again in a revolutionary period in history, and with mass movements changing many parts of the world, here in affluent United States, Dr. Smith returns to Paul's resurrection of the crucified Messiah, not as a revolutionary, but as an examination into self belief, self ethics and morality, rather than socio-politico activity.

Now what about the last third of the Trinity, the Messiah? New independent nations, new social systems, even diluted and belated Civil Rights, there is the Messiah. And more to come!

Harry E. Beller, M.D.
Miami

Dear Editor:

"Blessed is He that cometh in the name of the Lord," but devious is he who circulates tracts in a professional scientific journal. And swindled are they who pay to support material designed to undermine their beliefs.

Dr. Smith's missionary zeal is to be commended in its place, which is not in a publication supported by my dues. If he would care to send out his literature at his own (or his religious society's) expense I would certainly not object.

No rebuttal article on "The Unity of the Trinity" is planned.

LAWRENCE H. JACOBSON, M.D.
ORLANDO

Dear Editor:

Many physicians read, with much surprise, the article by Dr. J. Lawton Smith, in which he attempts to prove that God is a trinity, and not a unity. This is undertaken with quotations from the Hebrew Bible.

The Journal of the Florida Medical Association is not the place to carry on a religious controversy. The Journal is published for other purposes.

The lack of appropriateness of Dr. Smith's polemics in any medical journal is our concern.

Was the article printed in order to invite a discussion by those who have other interpretations of God, or was it to present one particular religious position?

We have been proud of our Journal and we hope it will not become a forum for religious controversy.

MAX DOBRIN, M.D.
MIAMI BEACH

Meetings

June

26-30 Rogers Heart Foundation Workshop in Electrocardiography, Redington Beach.

August

6- 9 Alcoholic Rehabilitation Program. Fifth Annual Florida School of Alcohol Workshop, Seville Hotel, Miami Beach.

October

21 Duval County Medical Society, Seminar on Shock, Hotel Roosevelt, Jacksonville.

January

4- 7 Recent Advances in Local Anesthetics and Regional Anesthesia, Eden Roc Hotel, Miami Beach.

March

2 Current Medical Concepts, Watson Clinic, Lakeland.

THE DUVALL HOME for RETARDED CHILDREN

A home offering the finest custodial care with a happy home-like environment. We specialize in the care of infants, bed-ridden children and Mongoloids.

For further information write to

MRS. A. H. DUVALL GLENWOOD, FLORIDA

Anderson Surgical Supply Co.

Established 1916

Distributors of Known Brands of Proven Quality

TELEPHONE 229-8504
Morgan at Platt, P. O. Box 1228
TAMPA, FLORIDA 33601

TELEPHONE 896-3107
556 9th St., South
ST. PETERSBURG, FLORIDA

TELEPHONE 376-8253
236 S.W. 4th Ave.
GAINESVILLE, FLORIDA

TELEPHONE CHerry 1-9589
1818 N. Orange Ave.
ORLANDO, FLORIDA



after surgery

B and C vitamins are therapy: Therapeutic amounts of B and C in stress formula vitamins often are vital during periods of physiologic stress. STRESSCAPS capsules, designed to meet increased metabolic demands, aid in achieving a more comfortable convalescence, a more rapid recovery. After surgery, as in many stress conditions, STRESSCAPS vitamins are therapy.



Stresscaps®

Stress Formula Vitamins Lederle

FOR PROFESSIONAL RECOMMENDATION ONLY

Each capsule contains:

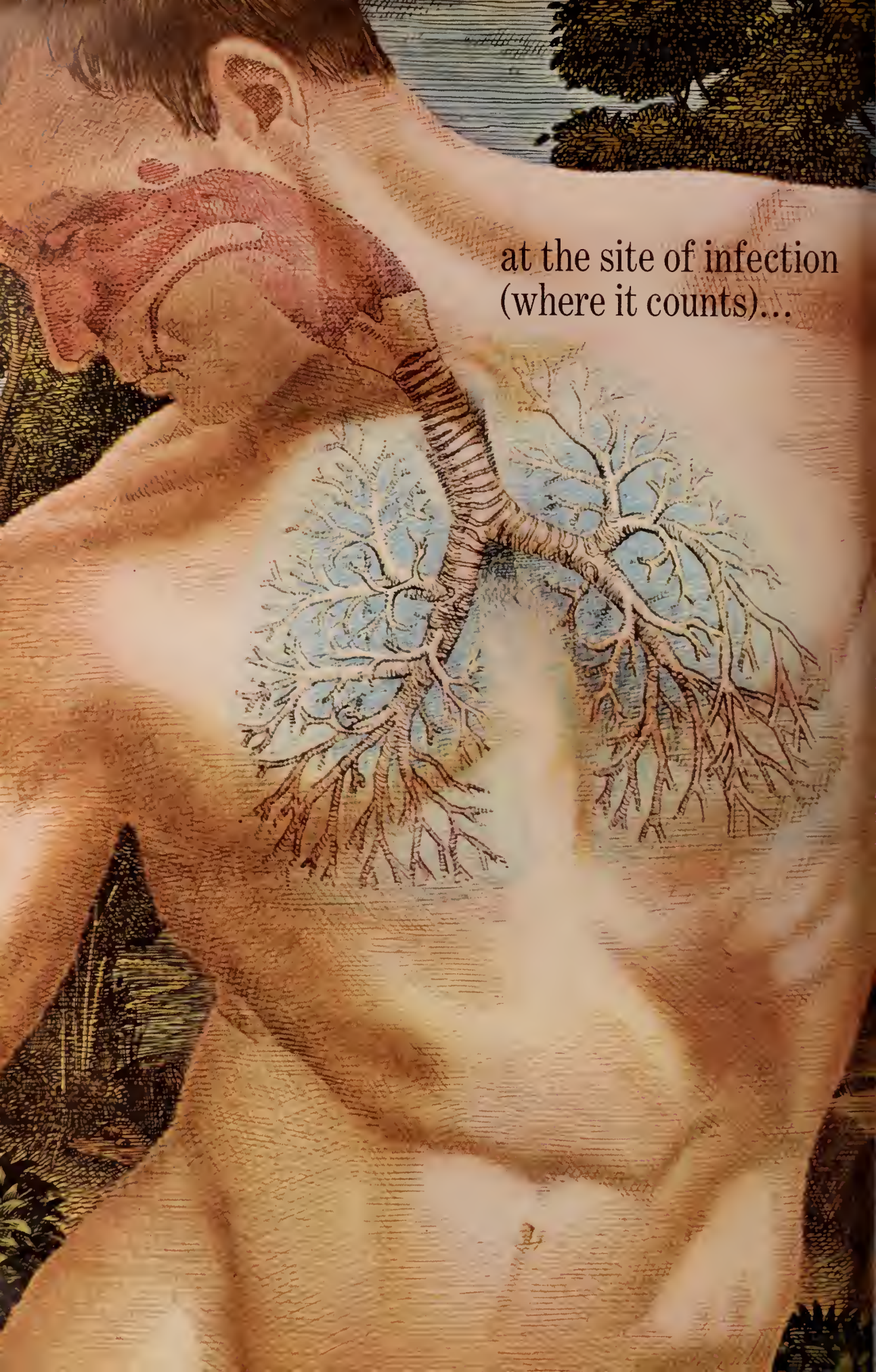
Vitamin B_1 (Thiamine Mononitrate)	10 mg
Vitamin B_2 (Riboflavin)	10 mg
Vitamin B_6 (Pyridoxine HCl)	2 mg
Vitamin B_{12} Crystalline	4 mcgm
Vitamin C (Ascorbic Acid)	300 mg
Niacinamide	100 mg
Calcium Pantothenate	20 mg

Recommended intake: Adults, 1 capsule daily, for the treatment of vitamin deficiencies. Supplied in decorative "reminder" jars of 30 and 100; bottles of 500.

LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York

Lederle

627-6—3613


at the site of infection
(where it counts)...

Ilosone® provides more antibacterial activity than any other oral erythromycin

Acid stable, better absorbed... Ilosone produces faster, higher, more prolonged blood levels, even in the presence of food[1-3]

Because it is the most active form of oral erythromycin, Ilosone can help assure consistently greater antibacterial activity at the site of infection. Ilosone produces peak antibacterial blood levels two to four times those of other erythromycin preparations.[1,2] Not only are these levels attained earlier, but they are maintained for much longer periods. Even the presence of food does not seem to affect the activity of Ilosone.[1,3]

In the treatment of patients with bacterial infections susceptible to erythromycin, Ilosone has compiled an excellent therapeutic record. Since it exerts its greatest activity against gram-positive organisms, it is particularly useful in common respiratory and soft-tissue bacterial infections. Ilosone kills—not merely inhibits—streptococci, pneumococci, and more strains of staphylococci than any other macrolide antibiotic. This bactericidal action, coupled with the high antibacterial levels attained, makes Ilosone especially valuable in patients with low host resistance, such as infants, debilitated individuals, and diabetics.

Ilosone has shown no cross-resistance with penicillin and may be effective against organisms that have become resistant to that agent. Despite its high antibacterial activity, Ilosone has demonstrated a low incidence of side reactions. Blood dyscrasias, ototoxicity, and tooth staining have not been observed. Infrequent cases of drug idiosyncrasy, manifested by a cholestatic jaundice, have occurred, but there have been no known definite residual effects.

700121

Ilosone®
Erythromycin Estolate

Lilly

(See next page for prescribing information.)

Ilosone®/ the most active oral form of erythromycin

Description: Ilosone is the most active form of oral erythromycin that has been developed. Because it is stable in acid, well absorbed, and excreted in lesser amounts in the bile, it provides faster, higher, and longer-lasting levels of antibacterial activity (ABA) in the serum, even when taken with food, than do comparable doses of erythromycin.

Indications: Ilosone is indicated in infections caused by microorganisms sensitive to its action (especially staphylococci, hemolytic streptococci, and pneumococci). The drug is therefore useful in a high proportion of bacterial diseases encountered in clinical practice and particularly in the treatment of bacterial infections of the upper and lower respiratory tract and soft tissues.

In the treatment of acute bacterial pharyngitis and tonsillitis, this antibiotic has promptly eradicated the bacteria (streptococci) and has produced a parallel prompt clinical improvement. There have been no group A beta-hemolytic streptococci resistant to this preparation. In beta-hemolytic streptococcus infections, treatment should be maintained for ten days to prevent the development of rheumatic fever or glomerulonephritis.

Erythromycin estolate has proved to be very effective in pneumococcus pneumonia and in acute bronchitis with pneumococci on culture. Bronchopneumonia and otitis media in children have responded well to its use.

The antibiotic has been used very successfully in staphylococcus infections. Good therapeutic results have been obtained in soft-tissue infections, abscesses, cellulitis, carbuncles, wound infections, and furunculosis.

In serious staphylococcus infections, erythromycin preparations should be used only in combination therapy with other antimicrobial agents. As is the case with any treatment regimen used in these severe conditions, surgical procedures should be performed when indicated, and large dosages of the antimicrobial agents should be employed. In this fashion, Ilosone has been effective in staphylococcus pneumonia, osteomyelitis, septicemia, empyema, and meningitis.

Multiple 500-mg. doses of the drug have been useful in gonorrhea and syphilis. Since penicillin is the drug of choice for the treatment of syphilis and gonorrhea, erythromycin estolate should be employed for these infections only in patients with a history of penicillin allergy. Also, other infections due to susceptible bacteria in patients known to be hypersensitive to penicillin or other antibiotics may be considered for treatment with Ilosone.

Contraindications: Ilosone is contraindicated in patients with a known history of sensitivity to this drug and in those with pre-existing liver disease or dysfunction.

Side-Effects: Data obtained from seven years' use of propionyl erythromycin ester and erythromycin estolate (Ilosone) indicate that hepatic dysfunction with or without clinical jaundice may occur during or following courses of therapy with the drug.

Changes in liver function tests in such cases have been indicative of intrahepatic cholestasis. The symptoms appear to be the result of a form of sensitization. The initial symptoms have appeared in some cases after a few days of treatment but generally have followed one or two weeks of continuous therapy or several courses of the drug. Symptoms reappear promptly if the drug is readministered to sensitive patients, usually within forty-eight hours. Eosinophilia was noted in peripheral blood counts. The findings readily subsided without apparent residual effects when treatment was discontinued. Recovery was delayed in one reported instance. The physician indicated in this case that either drug-induced jaundice or viral hepatitis may have been responsible for the findings.

In one clinical study involving ninety-three patients treated with the antibiotic, three cases of jaundice were observed and an additional eleven cases developed some changes in liver function tests. Three of the patients had abnormal liver function tests a second time on readministration of the drug.

Even though it is assumed that not all cases of jaundice have been reported, it seems clear that the number is small compared with the amount of drug that has been used. Reported cases have included persons in whom there had been administered other drugs known to be associated at times with hepatic side-effects and cases in which the presence of viral hepatitis or other disease may have been responsible for the findings. In some of the cases, associated gastro-intestinal symptoms simulated the colic of biliary tract disease. In other instances, clinical symptoms and results of liver function tests resembled findings in extrahepatic obstructive jaundice. It appears that the occurrence of jaundice after administration of Ilosone is infrequent, but further investigations are being made to estimate its incidence more accurately.

In those cases mentioned above in which jaundice appeared to be definitely related to use of the drug, laboratory findings were characterized by increased direct-reacting bilirubin, elevated alkaline phosphatase levels, negative or weakly positive cephalin flocculation and thymol turbidity tests, elevated serum glutamic oxalacetic transaminase levels, peripheral eosinophilia, and normal cholecystograms.

Individual idiosyncrasy seems evident since jaundice has not been reported in other patients taking prolonged courses of the medication. Patients with chronic infection have been given 1 to 2 Gm. of the drug daily for periods of two to six months, and patients with rheumatic fever have taken prophylactic doses of 0.5 Gm. daily for two years without difficulty. In one group of 144 patients who received the drug daily for two years, no jaundice was noted. It was of interest that members of six of these patients' families, who were not taking the drug, had episodes of jaundice during the study period.

Transaminase and serum alkaline phosphatase levels were determined in a group of fifty-four adults and children who took 250 mg. of Ilosone daily for an average of sixteen months as rheumatic fever prophylaxis. The results were compared with those of a similar group of forty-four patients who received penicillin. There were no cases of jaundice in either group. Elevation of SGPT and serum alkaline phosphatase levels during the course of treatment was observed in one patient treated with Ilosone and in two patients treated with penicillin. Seven other patients in the group receiving Ilosone and four others in the penicillin group showed elevations in one of the tests at some time during administration of the drugs.

Very satisfactory therapeutic results, without toxicity, were reported in 102 pediatric patients who received short-term (ten day) courses of Ilosone in the treatment of streptococcus infections. Results of liver function tests in these patients were comparable to those in a similar control group who had received penicillin.

Gastro-intestinal disturbances not associated with hepatic effects are observed in a small proportion of individuals as a result of a local stimulating effect of the medication on the alimentary tract; however, the normal intestinal gram-negative bacterial flora is not appreciably altered by erythromycin drugs.

Although allergic manifestations are uncommon with the use of erythromycin, there have been occasional reports of urticaria, skin eruptions, and, on rare occasions, anaphylaxis.

Administration and Dosage: Ilosone is administered orally.

Ilosone Pulvules®
Ilosone Chewable Tablets
Ilosone Drops
Ilosone, 125, for Oral Suspension

For infants and for children under twenty-five pounds of body weight, the usual dosage is 5 mg. per pound every six hours; for children twenty-five to fifty pounds, 125 mg. every six hours. (Tablets Ilosone Chewable should be chewed or crushed and swallowed with water.)

For adults and for children over fifty pounds, the usual dosage of Ilosone is 250 mg. every six hours.

For severe infections, these dosages may be doubled.

When larger doses are indicated, parenteral erythromycin therapy should be considered.

In the treatment of syphilis, the recommended total dosage is 20 to 30 Gm. given in divided doses for a period of ten to fifteen days. Close follow-up of the patient is necessary since erythromycin drugs have not had adequate evaluation in all stages of syphilis. Examinations of spinal fluid are recommended as part of the follow-up therapy.

For gonorrhea, 500 mg. four times a day for four days are recommended. In the treatment of gonorrhea, patients with suspected lesion of syphilis should have a dark-field examination before receiving antibiotics, and monthly serologic tests should be made for a period of three months.

How Supplied: Pulvules Ilosone, Capsules, N.F., 125 and 250 mg. (equivalent to base), in bottles of 24 and 100.

Tablets Ilosone Chewable, N.F., 125 mg. (equivalent to base) in bottles of 50.

Ilosone Drops, 5 mg. (equivalent to base) per drop, in 10-cc. size packages, with dropper calibrated at 25 and 50 mg.

Ilosone, 125, for Oral Suspension, N.F., 125 mg. (equivalent to base) per 5-cc. teaspoonful, in 60 and 150-cc.-size packages

References: 1. Griffith, R. S., and Black, H. R.: Am. J. M. Sc., *247*:69, 196
2. Griffith, R. S., and Black, H. R.: Antibiotics & Chemother., *12*:398, 196
3. Hirsch, H. A., Pryles, C. V., and Finland, M.: Am. J. M. Sc., *239*:198, 1960.

Additional information available to physicians upon request.
Eli Lilly and Company, Indianapolis, Indiana 46206.

Lilly

DIURESIS



MERCUHYDRIN®
(meralluride injection)

Twenty years ago the publication of "A System for the Routine Treatment of the Failing Heart"[1] established a schedule of diuretic therapy as a primary factor in the treatment of acute congestive failure. With emphasis upon daily injections of Mercuhydrin (meralluride injection) until dry weight was obtained, Gold, et al. achieved a 40% increase in improvement, in ⅓ the time, over other methods then current. Today, most medical texts continue to recommend parenteral mercurials in acute congestive failure when prompt diuresis is indicated.

Recently Modell[2] has stated: "The mercurial diuretics are the injectable diuretics of choice since they are the most potent as well as the most dependable. Their toxicity is not an important consideration either by comparison with other potent diuretics or in relation to the seriousness of the conditions in which they provide such excellent relief."

LAKESIDE

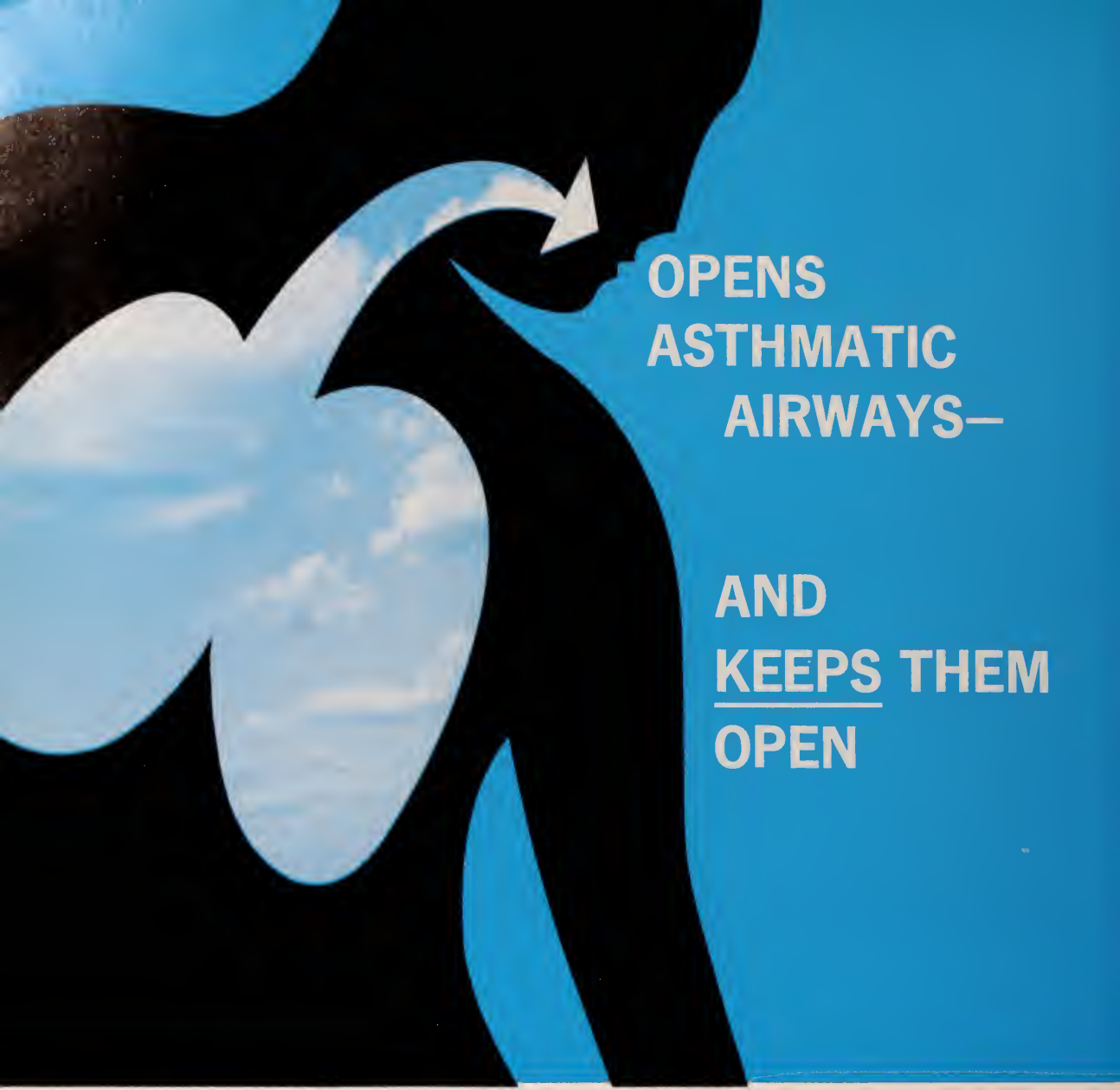
IN BRIEF

Mercuhydrin is indicated in edema of cardiac or hepatic origin and in the nephrotic syndrome; it is contraindicated in acute nephritis and in anuric or oliguric states. *The usual adult dose is one to two cc. daily or every other day until "dry weight" is obtained.* Sensitivity is rare but small initial doses are advised to minimize potential reactions; vertigo, fever, and rash have occurred. Overdosage may produce electrolyte depletion, muscle cramps, and G.I. reactions. Supplied: 1 cc. and 2 cc. ampuls in boxes of 12, 25 and 100; 10 cc. rubber capped, multiple-dose vials (intramuscular or subcutaneous use only) in boxes of 6 and 100.

1. Gold, Harry, *et al.: A System for the Routine Treatment of the Failing Heart,* The American Journal of Medicine, Vol. III, No. 6:665-692 (Dec.) 1956.

2. Modell, Walter: *Drugs of Choice 1966-1967,* p. 97, 1966.

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201



NUMA® DURA-TABS®

for *prolonged* aid to ventilation

Each Numa Dura-Tab provides:

theophylline	225 mg.
ephedrine HCl	50 mg.
butabarbital	25 mg.

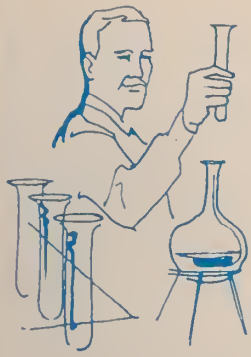
(Warning: butabarbital may be habit-forming.)

Numa Dura-Tabs provide *prolonged* three-way action to ease breathing. Theophylline, a potent bronchodilator with minimal effect on the CNS, opens air passages and reduces bronchial spasm. Ephedrine HCl improves breathing capacity through its decongestant action. Butabarbital, a mild sedative, allays fear and apprehension.

Dosage: One Numa Dura-Tab every 8 to 12 hours helps keep the asthmatic patient symptom-free all day/all night.

Precautions: Use with caution in cardiovascular or hyperthyroid disease, severe hypertension, circulatory collapse, prostatic hypertrophy, or glaucoma.

WYNN Pharmaceuticals, Inc., Phila., Pa. 19132 • Manufacturers of QUINAGLUTE® DURA-TABS®
(Quinidine Gluconate 5 gr.)



Public Health Topics

Medical History Coming Alive

The current status of communicable diseases in the developing countries of the world is strikingly similar to conditions in the United States a few years ago. Observations in these countries bring medical history alive.

About 3,000 children with a tentative diagnosis of infectious diarrhea are admitted each year to the large Egyptian Infectious Disease Hospital at Cairo, Egypt. We visited the U. S. Naval Medical Research Laboratory, adjacent to the hospital, as members of the Commission on Enteric Infections of the Armed Forces Epidemiological Board to review and advise on studies of acute diarrheal diseases. At the time, wards in the hospital were filled but we were advised that these patients represented only a small portion of the people affected. The more severely dehydrated infants were referred to the pediatric hospital for intensive fluid replacement therapy and in the large number of milder cases the patients were treated as outpatients. Meaningful morbidity and mortality statistics for the diarrheal diseases were unavailable, but it was apparent that the prevalence was high.

In a public health demonstration area in a rural section near the city, evidence of poverty was everywhere: children scantily clad, houses pathetically inadequate, domestic animals and fowl in the streets and yards. A spigot in the town square provided water; the means of disposal of human waste was too apparent.

An intensive epidemiological study of shigellosis had been made in this community. Repeated fecal cultures showed that virtually every child became infected with Shigella within the first year of life. It was estimated that half the infants born alive died with acute diarrhea before they reached their first birthday.

These conditions were a reminder of those in the United States in the early years of the Twentieth Century. In this era of horse drawn carriages, flies were numerous; standards of public and private sanitation were low in comparison with the present. The diarrheal diseases were the leading cause of death. During the summer, they were as acute a problem in New York City as today in Cairo. Reports of clinical and bacteriological studies from that period provide descriptions of classical bacillary dysentery.

In this country, cholera has only historical significance for physicians, but in Saigon the past became the present. There was a large cholera ward in the Infectious Disease Hospital equipped with special canvas beds having "man size" holes through which the bare buttocks of the small-sized Vietnamese projected, almost slipping into the pail placed underneath to catch the frequent watery fecal discharge. At the time few patients were in the ward; this was not the cholera season, but the senior physician serving the hospital described the epidemic earlier in the year.

The wards overflowed and Army tents were placed in the large courtyard to provide additional bed space. On one exceptional day, 300 patients were admitted. Only four regular hospital physicians were available; nurses and attendants administered the fluid therapy according to an established procedure. Fatalities were few except in those patients near death when admitted.

Since people recognized the symptoms of cholera and were terrified by the acuteness of the disease, few delayed coming to the hospital. Day or night those with suspect symptoms were admitted immediately.

Effective therapy for the condition was from the present time, otherwise, this was an era from medical history.

The physician becoming aware of these major communicable disease problems could adopt a condescending attitude. In his clinical experience, prevalence of like magnitude occurs only in foreign lands. He needs to refresh his recollections of medical history, then he will realize that the communicable diseases, now current major problems of other lands, are but a re-enactment of earlier experiences at home. They are not unique; the difference is one of time. Having been solved once, obviously these problems are not insoluble. In the other countries they must be relegated to the pages of medical history as already has been done in our own land.

ALBERT V. HARDY, M.D., DR.P.H.
ASSISTANT STATE HEALTH OFFICER
FLORIDA STATE BOARD OF HEALTH
JACKSONVILLE

CONVENTION PRESS

2111 NORTH LIBERTY ST.
JACKSONVILLE, FLORIDA
32206

QUALITY BOOK PRINTING
PUBLICATIONS BROCHURES

WHATEVER your first requisites may be, we always endeavor to maintain a standard of quality in keeping with our reputation for fine work —and at the same time provide the service desired. Let CONVENTION PRESS help solve your printing problems by intelligently assisting on all details.



When eating fads of teens or tots Lead to a sudden case of "trots"

Parepectolin for quick relief of acute diarrhea
...soothes colicky pain with paregoric*
...consolidates fluid stools with pectin
...adsorbs irritants with kaolin,
and protects intestinal mucosa

In children, Parepectolin may be used to control diarrhea promptly and prevent dehydration, until etiology has been determined. In some cases, Parepectolin may be all the therapy necessary.

Parepectolin®

Each fluid ounce of creamy white suspension contains:
*Paregoric (equivalent) ..... (1.0 dram) 3.7 ml.
Contains opium (¼ grain) 15 mg. per fluid ounce.
warning: may be habit forming
Pectin ..... (2½ grains) 162 mg.
Kaolin (specially purified) .... (85 grains) 5.5 Gm.
(alcohol 0.69%)
Usual Children's Dose: One or two teaspoonfuls three times daily.

RORER

WILLIAM H. RORER, INC.
Fort Washington, Pa.

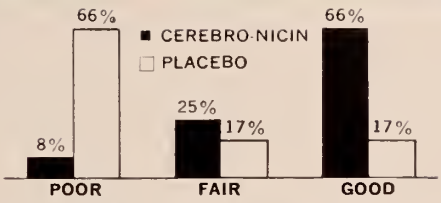
For the treatment of

apathy
irritability
forgetfulness
confusion

in the aging patient

Cerebro-Nicin®

A GENTLE CEREBRAL STIMULANT AND VASODILATOR



CEREBRO-NICIN® New double-blind study* shows how effectively senility can be forestalled. Four times as many aging patients showed striking improvement.

*A Double-Blind Study of Cerebro-Nicin, Therapy for the Geriatric Patient, R. Goldberg, Jrnl. of the Amer. Ger. Soc., June, 1964.

EACH CEREBRO NICIN CAPSULE CONTAINS:

Pentamethylene Tetrazole	100 mg.
Nicotinic Acid	100 mg.
Ascorbic Acid	100 mg.
Thiamine HCl	25 mg.
l-Glutamic Acid	50 mg.
Niacinamide	5 mg.
Riboflavin	2 mg.
Pyridoxine	2 mg.

DOSAGE: One capsule t.i.d. or as prescribed by physician.

AVAILABLE: Bottles of 100, 500, 1000 capsules. Also elixir pint bottles.

CONTRAINDICATIONS: There are no known contraindications to Pentamethylene Tetrazole although caution should be exercised when treating patients with a low convulsive threshold.

Most persons experience a flushing or tingling sensation after taking a higher potency niacin-containing compound. As a secondary reaction some will complain of nausea and other sensations of discomfort. This reaction is transient and is rarely a cause of discontinuance of the drug if the patient is forewarned to expect the reaction.

Federal law prohibits dispensing without a prescription.

Write for literature and samples . . .

BROWN

THE BROWN PHARMACEUTICAL CO.
2500 W. Sixth Street,
Los Angeles, California 90057

REFER TO PDR

TUCKER HOSPITAL, INC.

212 West Franklin Street

RICHMOND, VIRGINIA

A private hospital for diagnosis and treatment of psychiatric and neurological disorders. Hospital and out-patient services.

JAMES ASA SHIELD, M.D.
GEORGE S. FULTZ, JR., M.D.
CATHERINE T. RAY, M.D.

WEIR M. TUCKER, M.D.
EDWARD W. GAMBLE, III, M.D.
GERALD W. ATKINSON, M.D.

The Medical Detective



The Case of the Charred Skin

The occurrence of a death at work is not infrequent and it may often be related to an accident, but the death may also result from a natural disease entity unrelated to the activities of the employee. Occasionally one will encounter an unusual case where unexpected findings occur which are related to unexpected hazards or accident potentials. Insurance benefits paid as a result of injury or death make careful investigation essential.

In one such instance, a 45 year old man was found dead outside a machine shop of a small industrial plant. He had recently returned to work after a two months absence because of a coronary thrombosis. He was now being allowed to return for light duties after an examination by the company physician.

A question arose as to whether the death was job-connected and/or related to the recent coronary occlusion. As no one witnessed his death, the investigation was begun with an autopsy authorized by the state official in the local Workmen's Compensation office and with the permission of the family of the deceased. An on the spot investigation was also carried out by the plant safety officer.

The autopsy revealed an enlarged heart of 500 Gm. (normal 350) with marked scarring and severe coronary artery disease. There was no definite evidence of an acute infarction or new coronary thrombosis or hemorrhage into a plaque. Other significant visceral findings were normal.

In the absence of other findings, it was concluded that the death was due to heart disease. The last look at the body by the pathologist revealed an unusual injury to the right index finger involving a circular 1 cm. dark brown charred area resembling a cautery burn. The hairs of the finger were also charred. The whole perspective of the case now changed because of the possibility of an electrocution and thus accidental death. The skin was thoroughly checked and a similar burn was noted on the ball of the right foot with a corresponding hole in the sole of the right shoe. These findings were relayed to the safety officer who subsequently discovered that the victim was using an electric drill outside on wet ground. The drill was found to be defective and thus the cause of the electrocution.

In this instance a considerable service was given to the family by a thorough investigation. Were it not for the astute observation of the burn on the finger by the pathologist, the accidental aspect of the death might never have been known.

William G. Eckert, M.D.

IRON DEFICIENCY

ANEMIA



Imferon®

(iron dextran injection)

There's as much iron . . . 250 mg. . . . in a 5 cc. ampul of Imferon (iron dextran injection) as in a pint of whole blood. When iron deficient patients are intolerant of oral iron . . . or orally administered iron proves ineffective or impractical . . . or if the patient cannot be relied upon to take oral iron as prescribed, Imferon (iron dextran injection) dependably increases hemoglobin and rapidly replenishes iron reserves. Precise dosage is easily calculated.

LAKESIDE

IN BRIEF. ACTION AND USES: A single dose of Imferon (iron dextran injection) will measurably begin to raise hemoglobin and a complete course of therapy will effectively rebuild iron reserves. The drug is indicated only for specifically-diagnosed cases of iron deficiency anemia and then only when oral administration of iron is ineffective or impractical. Such iron deficiency may include: patients in the last trimester of pregnancy; patients with gastrointestinal disease or those recovering from gastrointestinal surgery; patients with chronic bleeding with continual and extensive iron losses not rapidly replenishable with oral iron; patients intolerant of blood transfusion as a source of iron; infants with hypochromic anemia; patients who cannot be relied upon to take oral iron.

COMPOSITION: Imferon (iron dextran injection) is a well-tolerated solution of iron dextran complex providing an equivalent of 50 mg. iron in each cc. The solution contains 0.9% sodium chloride and has a pH of 5.2-6.0. The 10 cc. vial contains 0.5% phenol as a preservative.

ADMINISTRATION AND DOSAGE: Dosage, based upon body weight and Gm. Hb/100 cc of blood, ranges from 0.5 cc. in infants to 5.0 cc. in adults, daily, every other day, or weekly. Initial test doses are advisable. The total iron requirement for the individual patient is readily obtainable from the dosage chart in the package insert. Deep intramuscular injection in the upper outer quadrant of the buttock, using a Z-track technique, (with displacement of the skin laterally prior to injection), insures absorption and will help avoid staining of the skin. A 2-inch needle is recommended for the adult of average size.

SIDE EFFECTS: Local and systemic side effects are few. Staining of the skin may occur. Excessive dosage, beyond the calculated need, may cause hemosiderosis. Although allergic or anaphylactoid reactions are not common, occasional severe reactions have been observed, including three fatal reactions which may have been due to Imferon (iron dextran injection). Urticaria, arthralgia, lymphadenopathy, nausea, headache and fever have occasionally been reported.

PRECAUTIONS: If sensitivity to test doses is manifested, the drug should not be given. Imferon (iron dextran injection) must be administered by deep intramuscular injection only. Inject only in the upper outer quadrant of the buttock, not in the arm or other exposed area.

CONTRAINDICATIONS: Imferon (iron dextran injection) is contraindicated in patients sensitive to iron dextran complex. Since its use is intended for the treatment of iron deficiency anemia only it is contraindicated in other anemias.

CARCINOGENICITY POTENTIAL: Using relatively massive doses, Imferon (iron dextran injection) has been shown to produce sarcoma in rats, mice and rabbits and possibly in hamsters, but not in guinea pigs. The risk of carcinogenesis, if any in man, following recommended therapy with Imferon (iron dextran injection) appears to be extremely small.

SUPPLIED: 2 cc. ampuls, boxes of 10; 5 cc. ampuls, boxes of 4; 10 cc. multiple dose vials.

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201



Ballast Point Manor

5226 Nichols St., P. O. Box 13467 Phone 831-4191
Tampa, Florida

Don Savage, Owner-Manager

Care of mild mental cases, senile disorders and invalids. Alcoholics treated. Aged adjudged cases will be accepted on either permanent or temporary basis.

Thomas B. Slade — Fifty Years in Florida — J. Beatty Williams

Surgical SUPPLY COMPANY

HAMILTON — RITTER — SKLAR — BURDICK
CLAY-ADAMS — B-D — BARD-PARKER — TYCOS
BAUM — WELCH-ALLYN AND MANY, MANY OTHERS

Ph. 355-8391 P. O. Box 2580 — 1050 W. Adams Street Jacksonville, Fla. 32203

APPALACHIAN HALL

ASHEVILLE Established 1916 NORTH CAROLINA



An Institution for the diagnosis and treatment of Psychiatric and Neurological illnesses, rest, convalescence, drug and alcohol habituation.

Insulin Coma, Electroshock and Psychotherapy are employed. The Institution is equipped with complete laboratory facilities including electroencephalography and X-ray.

Appalachian Hall is located in Asheville, North Carolina, a resort town, which justly claims an all around climate for health and comfort. There are ample facilities for classification of patients, rooms single or en suite.

Wm. Ray Griffin Jr., M.D.
Robert A. Griffin, M.D.

Mark A. Griffin Sr., M.D.
Mark A. Griffin Jr., M.D.

In peptic ulcer... antacid therapy with a new benefit



CONTAINS A BALANCED COMBINATION OF THE MOST WIDELY USED ANTACIDS— FOR RAPID NEUTRALIZATION. PLUS SIMETHICONE— TO CONTROL THE FACTOR WHICH ANTACIDS ALONE CANNOT INFLUENCE.

Mylanta®

- In Mylanta, aluminum and magnesium hydroxides are balanced to minimize the chance of constipation or laxation and still achieve rapid acid neutralization and pain relief.
- The positive action of simethicone helps relieve the painful gas symptoms which often accompany the peptic ulcer syndrome.
- The nonfatiguing flavor and smooth, nongritty consistency of tablets and liquid encourage continued patient cooperation during long-term therapy.

Composition: Each Mylanta chewable tablet or teaspoonful (5 ml.) of liquid contains: magnesium hydroxide, 200 mg.; aluminum hydroxide, dried gel, 200 mg.; simethicone, 20 mg. **Dosage:** one or two tablets, well chewed or allowed to dissolve in the mouth, or one or two teaspoonfuls of liquid to be taken between meals and at bedtime.

The Stuart Company, Pasadena, California
Division of Atlas Chemical Industries, Inc.

Stuart



when he just can't sleep

Tuinal®

One-Half Sodium Amobarbital and
One-Half Sodium Secobarbital
supplied in ¾, 1½, and 3-grain Pulvules®



Tuinal helps wakeful patients fall asleep fast, stay asleep all night.

Indications: Tuinal, comprised of equal parts of Seconal® Sodium (sodium secobarbital, Lilly) and Amytal® Sodium (sodium amobarbital, Lilly), is indicated for prompt and moderately long-acting hypnosis. Not suitable for continuous daytime sedation.

Contraindications: Barbiturates should not be administered to anyone with a history of porphyria, nor should they be given in the presence of uncontrolled pain, because excitement may result.

Warning: May be habit-forming.

Precautions: Tuinal should be used cautiously in patients with decreased liver function, since prolongation of effect may occur.

Adverse Reactions: Idiosyncrasy, such as excitement, hangover, or pain, may appear. Hypersensitivity reactions occur in some patients, especially in those with asthma, urticaria, or angioneurotic edema.



Dosage: 1½ to 3 grains at bedtime.

Additional information available to physicians upon request.
Eli Lilly and Company • Indianapolis, Indiana 46206

Lilly

700695



GET AWAY FROM THAT TELEPHONE

Steal an hour, a day, a week—fishing, cruising, loafing. Stamas years of know-how give you superb quality and performance. Plenty of room for family and friends. Enclosed cabin, 2 full-length bunks, marine toilet. Famous Stamas Level Ride in any water, at all speeds. All fiberglass. V-24 Clearwater is trailerable without special highway permits. And priced so low you can't say no!

WRITE Dept. F for color brochures and name of nearest dealer. Stamas Boats are built in Florida; enjoyed all over the world.

Stamas BOATS, INC.
THE FOLKS WHO WROTE THE BOOK ON BUILDING FINEST FIBERGLASS BOATS
Tarpon Springs, Florida 33589



Special Article



A Partnership Between the Practice of Medicine and Educational Institutions

EMANUEL SUTER, M.D.

A long era during which health and medical care were considered the prerogative of the medical profession alone is coming to an end. Events within and without medicine have brought about conditions which call for a broader distribution of responsibilities among a number of professions. Medicine and medical education are under critical review not only by their own peers but by society in general. The privileged position enjoyed by medicine for many years led to certain distortions within its own ranks, and the actors on the scene of medicine and medical education maintained a benevolent intrafamily warfare which was satisfactory to the parties involved, but which resulted in neglect of some of the urgent responsibilities to society. Medicine and medical education are in a critical and vulnerable position; however, it should be recognized that some of the greatest successes of medicine are also contributing causes to the situation. Thus, advances in medical sciences and technology have led to conditions that permit today demands for far more effective health care for society than ever before. Also, the development of communication and education systems has resulted in a better informed public that is now demanding health care as a right rather than a privilege. In this situation it is in order to reexamine some of the responsibilities of health care personnel, of which the physician is a part, and to proceed to assign functions to representative agencies of health care organizations.

A number of organizations and agencies are involved in health care in our society, some of which are voluntary, some professional, and others are associated with larger institutions. To mention a few one may list organized medicine, health professions organizations, hospital associations, voluntary health agencies, state agencies such as State Board of Health, State Welfare Board, Commission on Mental Health, educational institutions, such as the University of Miami School of Medicine and the University of Florida College of Medicine, and other colleges and organizations. All these organizations have a stake in health and take fragments of responsibility for one phase or another in the total health picture. Although each profession or organization recognizes that many professions and systems contribute towards health

Dean, College of Medicine, University of Florida.

Adapted from remarks made at a joint meeting of the FMA Council on Medical Education and Hospitals, the directors of medical education of hospitals of the state and representatives of the University of Miami School of Medicine and the University of Florida College of Medicine, Orlando, Dec. 11, 1966.

care in society, a rigid hierarchy of values prevails which results in jealousy and, frequently, in lack of cooperation. For the benefit of society and of the health care professions themselves, a partnership of planning and implementation by all organizations is mandatory to maintain the best possible health care for our people.

Major Functions of Partnership

This review permits only brief mention of a few major areas as functions of the health care partnership:

Definition of Goals

In view of general dissatisfaction and rising expectations within society in regard to health affairs it is imperative that the broad goals of health and medical care be defined for society. This definition should go beyond the commonplace statement that health care has become a right rather than a privilege. It should spell out responsibilities of the individual, of the profession, of organizations and of society and should recommend systems by which these goals could be attained. Since responsibility for health care is no longer the sole prerogative of the medical profession, all health professions have to participate in arriving at the definition of the goals. The latter are influenced by cultural attitudes and economic and social conditions and, therefore, it is essential that representatives of the public have a part in the deliberations. It is proposed that a "Florida Task Force on Health Care"* be created to consider these goals. This should be a commission with broad representation and should possibly be appointed by the Governor. Since the recommendations of this commission affect the future of professional organizations, educational institutions, the Florida State Board of Health, voluntary agencies and hospital organizations, representatives of these organizations should be either members of the commission or at least be heard during the deliberation.

Organization and Rendering of Health Care

Medicine has been compared to free enterprise systems. There are certain peculiarities to medicine, however, which make it a much more restricted system. Although the physician on one hand can set the conditions under which he will render service, he is bound by the ethical standards of his profession to render medical service to anyone in need. The patient on the other hand has free choice of the physician in theory only, inasmuch as the services of the physician are not open for inspection and the medical organization frowns upon advertising the services. The patient, therefore, is a somewhat captive consumer because of his particular condition and because of certain restrictions imposed upon medicine. Another element making medicine different from true free enterprise systems is the fact that career decisions of many young physicians are based on personal interest, prestige and often economic opportunities rather than societal needs. As a result, shortages have developed in certain specialties or professions and in some geographic areas.

A great disadvantage is the lack of accurate information in regard to the effective utilization of our health care systems and the fact that the various elements of our health care systems frequently are not communicating freely.

To remedy this situation, a thorough study of human and material resources for health care in Florida should be undertaken. There is need for definition of professional functions for comprehensive health care which might involve the development of new professional roles. Health care has become too big to leave it to chance alone.

Again, the Task Force on Health Care could, in collaboration with the Universities, undertake or at least encourage such studies. This will require the introduction of disciplines into health care research, which have not yet been recognized fully as being basic to medicine, such as sociology, systems engineering and behavioral sciences, to mention a few.

Research

Research represents an essential function of the medical profession and it has contributed more than any other factor to the changes that have altered medicine so drastically. Nearly everyone has accepted the fundamental contributions by basic biology, especially in mechanistic physiologic and molecular terms, towards the understanding of disease processes and their treatment. Only recently has the importance of behavioral research been acknowledged mainly because its maturation as a science has been slow in developing. Behavioral sciences span as broad an area as medicine itself and therefore engage students of

*P.L. 89-749, the Comprehensive Health Planning and Public Health Amendments of 1966, calls for area wide comprehensive health planning at the state level.

many disciplines. Investigations are not only aimed at an understanding of man as a biologic unit, but also at elucidating basic aspects of his interactions with others in a societal arrangement. The latter studies may be of great importance as far as organization of health care is concerned.

It seems obvious that research will continue to be done mostly in academic institutions since the faculties at such institutions have accepted research as an integral part of their professional activity. It will be essential, however, to devise mechanisms by which investigations can enter areas of research which may lie outside academic institutions. This certainly will be true for studies of health care systems in society through sociology and systems engineering.

Education

Medicine demands that the physician be a scientist as well as a humanist. His education is a broad one and requires time and money. Originally, the practicing physician himself was the educator for the new generation through a preceptor system. This arrangement proved satisfactory as long as the practice of medicine was based essentially on empiricism. The situation changed drastically with the advent of the biological sciences as a foundation for the practice of medicine. A portion of the educational process had to be given to professional people with a special training in the biomedical sciences and gradually even the teaching of the more practical aspects of medicine was delegated to a group of professional physicians, namely the full time faculties of medical schools. This development had certain limitations inasmuch as it led towards an estrangement between the practice of and the education for medicine. It is this particular problem which is of great concern to medical institutions as well as to organized medicine.

In the life-long process of medical education, four phases can be distinguished; they are preprofessional, professional, graduate and continuing medical education. In the assignment of roles in this education process, it is obvious that the universities are in full charge of preprofessional education; that medical schools almost exclusively dominate professional education, and that the practice of medicine and medical schools share the responsibility for graduate and continuing medical education. More important, this educational experience should be looked upon as a unit rather than as consisting of four independent elements. Throughout the United States medical school faculties are in process of reappraising their educational programs and are making serious attempts to communicate more effectively with the medical profession to correct a development which has been detrimental to the profession, the students and the institution. It is in this area that partnership is sought. This partnership, however, should be expanded to include the health-related professions, which are making increasingly important contributions to health care. Educational programs should aim at introducing students to the concept of this partnership as the basis of medical practice of the future. This new orientation will be necessary for the teachers and practitioners as well.

Medical education is unique. It is the only educational process during which a service is rendered. Inherently, this system of learning and service involves the concern of other groups engaged in health care. In order, therefore, to satisfy the combined needs for education, research and service in the health field, the cooperation of a number of agencies is essential, especially the university-based medical schools, organized medicine, the community hospitals and voluntary agencies.

Organization of Partnership

By necessity the establishment of a partnership between the practice of medicine and medical education will involve the latter to a larger extent with extramural programs. The College of Medicine of the University of Florida in the past has concentrated on its intramural programs and given less emphasis to the development of extramural programs. Such programs pose many tasks and challenges to educational institutions. One is the dilution of effort and subsequent decrease of quality and weakening of the intramural programs. Another difficulty is the relationship to outside individuals, organizations and agencies. To provide a framework and an organization protecting the integrity of the institution and facilitating the establishment of relationships, the J. Hillis Miller Health Center plans to establish a Health Extension Division. This Division will be equivalent to the Shands Teaching Hospital and Clinics offering an extramural organiza-

tion for teaching, research and patient care in the community. The director of the Division will have similar status in the Health Center as the director of the Shands Teaching Hospital and Clinics and the deans of the various colleges. It is envisaged that the Extension Service will encompass various programs such as the relationships to a statewide network of graduate education, continuing education for practicing physicians, regional medical programs and research in comprehensive community health care service, to mention only a few.

It seems preferable that this division be a unit of the Health Center. The College of Medicine should play a major role in it, because education of health-related personnel in close association with the physicians will become increasingly more important by facilitating the training of the physician as the leader of the health team. Recognition of a health team concept with the physician as its leader is critical for the future of medicine. Society's need for health manpower compels us to plan accordingly.

Epilogue

It is evident that the prospect of cooperative ventures represents expansion and change of goals and policies for the College of Medicine at the University of Florida. They will also affect the structure of the faculty and its organization. The College has, however, reached a certain degree of maturity that permits it to become engaged in such programs. Needless to say, to implement any new plans, additional resources through state and other agencies, and from the federal government, have to be made available. Most important, the relationship to organized medicine, such as the Florida Medical Association, has to assume a more meaningful and functional character.

▶ Dr. Suter, University of Florida College of Medicine, Gainesville 32601.

Hill Crest
HOSPITAL
(Formerly Hill Crest Sanitarium)

7000 5TH AVENUE SOUTH
Box 2896, Woodlawn Station
Birmingham, Alabama 35212
Phone: 205 - 595-1151

A patient centered independent hospital for intensive treatment of nervous disorders . . .

Hill Crest Hospital was established in 1925 as Hill Crest Sanitarium to provide private psychiatric treatment of nervous or mental disorders. Individual patient care has been the theme during its 41 years of service.

Both male and female patients are accepted and departmentalized care is provided according to sex and the degree of illness.

In addition to the psychiatric staff, consultants are available in all medical specialities.



MEDICAL DIRECTOR:
James A. Becton, M.D., F.A.P.A.

CLINICAL DIRECTORS:
James K. Ward, M.D., F.A.P.A.
Hardin M. Ritchey, M.D., F.A.P.A.

HILL CREST is a member of:
AMERICAN HOSPITAL ASSOCIATION . . . . . NATIONAL ASSOCIATION OF PRIVATE PSYCHIATRIC HOSPITALS . . . ALABAMA HOSPITAL ASSOCIATION . . . BIRMINGHAM REGIONAL HOSPITAL COUNCIL.
Hill Crest is fully accredited by the Joint Commission on Accreditation of Hospitals.

Hill Crest
HOSPITAL
BIRMINGHAM, ALABAMA



"When I couldn't even smell corned beef and cabbage, I decided it was time for you, Doc."

Maybe he doesn't know when he's well off. But you might want to prescribe long-acting Novahistine LP anyway.

Two tablets in the morning and two in the evening will usually provide day and night relief by helping to clear congested air passages for normal, free breathing. Novahistine LP is formulated to provide continuous therapeutic effect for 8 to 12 hours. The decongestant ingredients help restore normal mucus secretion and ciliary activity—physiologic defenses against infection of the respiratory tract.

Use cautiously in individuals with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Caution ambulatory patients that drowsiness may result.

Each Novahistine LP tablet contains: phenylephrine hydrochloride, 25 mg., and chlorpheniramine maleate, 4 mg.

NOVAHISTINE® LP

DOW **PITMAN-MOORE** Division of The Dow Chemical Company, Indianapolis

Classified Advertisements

Advertising rates for this column are $5.00 per insertion for ads of 25 words or less. Add 20¢ for each additional word.

physicians wanted

General Practitioners

GENERAL PRACTITIONER WANTED (AAGP) for north Florida college town. Vacancy in busy two man practice in medicine, pediatrics and obstetrics. Immediate excellent income with eventual full partnership. Write C-614, P.O. Box 2411, Jacksonville, Fla. 32203.

EXCELLENT OPPORTUNITY for general practitioner in community of 15,000; central Florida; 76 bed JCAH hospital. Write or call collect R. C. Thompson, Bartow Memorial Hospital, Bartow, Fla.

WANTED: General practitioner associate, leading to partnership. Practice approximately one half industrial. Ideal central Florida community. Send detailed resume to C-716, P.O. Box 2411, Jacksonville, Fla. 32203.

GENERAL PRACTITIONER needed in growing suburban area of 7,000 plus east of Orlando presently without M.D. Area site of new Florida Technological University to be opened 1968. Office space will be built. Contact H. Wayne Todd, D.D.S., 10043 E. Colonial Dr., Orlando 32807, phone (305)277-9420.

GENERAL PRACTITIONER needed for independent practice within a three man association. Modern office building in Brooksville, Florida. Contains lab, x-ray and adequate personnel. Advantage of group practice without incumbrances of partnership. Call, write or visit R. A. Henry, M.D., Brooksville, Florida 33512.

WANTED: General practitioner to associate with established young doctor. Also office space available for rent. Contact G. L. Ehringer, M.D., 1184 Oceanshore Blvd., Ormond Beach, Florida 32074.

GENERAL PRACTITIONER WANTED: Partner, semi-rural practice in central Florida area undergoing rapid industrial expansion. Spacious, fully equipped office including x-ray. Good income without working yourself to death. Write C-749, P.O. Box 2411, Jacksonville, Fla. 32203.

WANTED: General practitioner and internist to join group for partnership in Miami area. Must have Florida license and fulfilled military obligation. Write Medical Business Consultants, 9999 N.E. 2nd Ave., Miami Shores, Fla. 33138.

Locum Tenens

LOCUM TENENS wanted July and August. Guarantee of $1,500. monthly plus percentage above this. Gulf coast. General practice. Send curriculum vitae first letter. Future association possible. Write C-744, P.O. Box 2411, Jacksonville, Fla. 32203.

Specialists

PEDIATRICIAN: Board eligible, to join two board pediatricians in rapidly growing Southeastern Florida coastal college town. Early partnership anticipated, excellent hospitals nearby. Send references and curriculum vitae in first letter. C-719, P.O. Box 2411, Jacksonville, Fla. 32203.

OBSTETRICIAN-GYNECOLOGIST WANTED: To associate with two man group. Large established practice in Miami; Board eligible or certified; prefer under age 35. Write P.O. Box 384, Miami Shores, Fla. 33153.

WANTED: Board eligible general surgeon under age 40 for association with two general surgeons in greater Miami area. Florida license required. Write C-699, P.O. Box 2411, Jacksonville, Fla. 32203.

PEDIATRICIAN: To join two pediatricians (shared expenses- individual practices). Must be board qualified, have Florida license, and under age 40. Choice city lower West coast. Write C-729, P.O. Box 2411, Jacksonville, Fla. 32203.

INTERNIST WANTED: Preferably young board qualified or certified internist to associate with well established certified internist in Ft. Lauderdale, Florida. Terms open. Send details first letter. Write C 752, P.O. Box 2411, Jacksonville, Fla. 32203.

PHYSICIAN WANTED: Internist, board certified or eligible for association with older certified internist and eventual partnership. Southeastern Florida resort area. Practice in existence 22 years. Write C-758, P.O. Box 2411, Jacksonville, Fla. 32203.

NEUROLOGIST: A challenging opportunity for neurologist interested in Parkinsonism in facility devoted exclusively to this illness. Large number of Parkinson patients available daily. Excellent working conditions. Florida license required. Five day week. Fringe benefits. References required. Box 333, Miami, Florida 33101.

OBSTETRICIAN-GYNECOLOGIST wanted soon as associate or partner in a two office established practice in southeast Florida. Write C-701, P.O. Box 2411, Jacksonville, Fla. 32203.

real estate

UNUSUAL OPPORTUNITY: Pediatrician, otolaryngologist, general practitioner to locate in beach community. Complete suite in modern building with other physicians. Immediate medical support. Box 605, Melbourne, Fla. 32901.

MEDICAL OFFICE: Ultra-modern building. All services provided. Parking available. Five medical specialists, pharmacy, medical lab now installed. Space for one to three doctors. Write: New England Corporation, 240 New England Building, Winter Park, Fla. 32789. Telephone 644-8217.

AVAILABLE: Otolaryngology office. Immediate occupancy. Ideal location. Excellent opportunity. Capable gross $35,000-$50,000 first year. Owner retiring. Sell or lease. Location excellent for general practice. Write C-746, P.O. Box 2411, Jacksonville, Fla. 32203.

RENTAL PROFESSIONAL SUITES: Will divide 2,250 sq. ft. to tenants' specifications. Modern professional building. Ideal location. Ample parking. 1300 N. Federal Highway, Lake Worth, Fla. 33460. (305) 582-1760.

OFFICE SPACE FOR RENT, designed for internist. Ample parking, excellent location, 900 sq. ft., $225 per month. Location: 1707 San Marco Blvd., Jacksonville. Contact Carl D. Langston, Inc., P.O. Box 8106, Jacksonville 32211. Phone 724-8404.

FOR SALE OR QUALIFIED LEASE: Fully equipped medical clinic in the northwest section of Miami, Florida. Call UN5-9004 or UN4-0005.

IN THE FABULOUS FLORIDA KEYS: Located on U.S. Highway 1 in Marathon, Florida. Modern, air-conditioned clinic, 14 rooms, including 2 lavatories, 2 labs, reception and office rooms, utility rooms and carport, all with draperies, buzzers, etc. Upstairs is very large living room, dining room, modern kitchen with built-ins and 2 bedrooms and bath. Adequate paved parking. 100 x 135 lot. Modern 36 bed hospital located 3 miles distant. This area needs and can support a physician. $20,000 will handle, terms on balance. Write, wire or phone: Alan G. Schmitt, Box 60, Marathon Shores, Fla. 743-5181 or 743-6035.

FOR LEASE: Quiet professional office available July 1, 1967. Presently set up for psychiatry, including therapy room. On main thoroughfare near hospital and expressway. Ample parking. Write Mrs. Durrett, 1617 San Marco Boulevard, Jacksonville, Fla. 32207.

practices available

GENERAL PRACTITIONER wanted to take over for physician going into residency. Beach community of 10,000; 50 bed hospital. Office and equipment available. Write C-745, P.O. Box 2411, Jacksonville, Fla. 32203.

situations wanted

RELOCATION WANTED: Bored board general surgeon, Cleveland, wishes to relocate in Florida. Interested in solo, partnership or group practice. Now in practice. Age 45. Have Florida license. Write C-751, P.O. Box 2411, Jacksonville, Fla. 32203.

LOCUM TENENS in psychiatry wanted by third year resident who plans to enter practice in Florida in June 1968. Available for two to four weeks this summer. Write C-750, P.O. Box 2411, Jacksonville, Fla. 32203.

AVAILABLE FOR LOCUM TENENS OR ASSISTANT: Certified internist. January through May of each year. Florida license. Flexibility possible. Write C-759, P.O. Box 2411, Jacksonville, Fla. 32203.

BOARD CERTIFIED ORTHOPAEDIC SURGEON seeking association with another orthopaedic surgeon or multi-specialty group in the southeastern coastal Florida area. Age 40. Write P.O. Box 126, Oak Lawn, Illinois 60453.

Miscellaneous

WANTED: Pediatrician, internist, general practitioner. Where? Apopka, Fla., 12 miles west of Orlando, Florida. Why? — new hospital, one-half completed, will open fall of '67, area of 38,000-40,000 with presently 3 physicians and one Ob-Gyn specialist. Seeing is believing! Call Apopka, Fla. collect: 889-2232 or write Dr. Maier, Box 155, Apopka, Fla. 32703.

OPPORTUNITY FOR DOCTORS who want to join a multi-specialty group—who want to practice in Florida. A senior surgeon with a large practice and with adequate facilities including laboratory, x-ray and physical therapy departments, desires to confer with board eligible or board certified doctors. The intent is to form a new multi-specialty group practice. Close proximity to a new 500 bed hospital. All inquiries held in strict confidence. Reply to: Jay S. Lombardy & Associates, Management to the Medical Profession, 1177 N.E. 8th St., Delray Beach, Florida 33444.

FLORIDA LICENSED PHYSICIANS: Two for emergency room coverage; contract annual salary $18,000-$20,000. Contact Administrator or Assistant Administrator, Memorial Hospital, Hollywood, Florida 33021.

The Florida Medical Association offers placement assistance through the Physician Placement Service, P. O. Box 2411, Jacksonville 32203. This service is for the use of physicians seeking locations, as well as physicians seeking associates, and is without charge.

Florida Medical Association

735 Riverside Ave., P. O. Box 2411

Jacksonville, Florida 32203

Councils

W. Dean Steward, M.D., President	Orlando
Jack Q. Cleveland, M.D., President-Elect	Coral Gables
Irving E. Hall Jr., M.D., Vice President	Bradenton
James T. Cook, M.D., Speaker of the House	Marianna
Charles K. Donegan, M.D., Vice Speaker	St. Petersburg
Floyd K. Hurt, M.D., Secretary-Treasurer	Jacksonville
George S. Palmer, M.D., Immediate Past President	Tallahassee
W. Harold Parham, Executive Director	Jacksonville

Officers

Jesse W. Castleberry, M.D., Chairman, Council on Allied Professions and Vocations	Orlando
John J. Cheleden, M.D., Chairman, Judicial Council	Daytona Beach
Jere W. Annis, M.D., Chairman, Council on Legislation and Public Agencies	Lakeland
Jack A. MaCris, M.D., Chairman, Council on Medical Economics	St. Petersburg
James M. Ingram, M.D., Chairman, Council on Medical Services	Tampa
Richard C. Dever, M.D., Chairman, Council on Scientific Activities	Miami
John D. Milton, M.D., Chairman, Council on Special Activities	Coral Gables
Sanford A. Mullen, M. D., Chairman, Council on Specialty Medicine	Jacksonville
Mason Romaine III, M.D., Chairman, Council on Voluntary Health Agencies	Jacksonville

Information for Authors

Manuscripts submitted for publication in the Journal of the Florida Medical Association should be double or triple spaced on white bond, including title page, illustration legends, charts and graphs, table headings, footnotes and bibliography.

Submit original manuscript and two copies. Copying by electrostatic dry process (not wet process) is preferred to tissue copies. Retain one additional copy in your office for proofreading. All material is submitted with the understanding it is subject to editing.

Photographs should be submitted as 5x7 glossy prints, untrimmed and unmounted; number each photograph *lightly* on the back with pencil and indicate top. Charts, graphs and medical illustrations should be submitted as india ink drawings on white gloss paper; remember to make details large enough to allow for photographic reduction. It is a policy of the Journal that authors pay for any cuts made to illustrate their papers.

Titles should be short, specific and clear. Omit phrases such as "The Use of," "Observations on." If paper was presented at a meeting, indicate name of organization, city, month, day and year.

Only original papers not previously published are accepted for publication. Manuscripts submitted for publication are subject to review and approval by the Journal Publications Committee. Except by invitation, only papers from members of the Florida Medical Association are considered for publication.

References should be typewritten, double or triple spaced, beginning on a new sheet of paper entitled "References." Number references in the text in order of citation and prepare bibliography in the same order. Bibliographies should conform to the style of the Index Medicus. The Journal prints only bibliographies of eight references or less; bibliographies of more than eight references are referred to at the end of the paper with the statement "References are available from the author upon request."

All manuscript pages should be numbered consecutively. Within the manuscript, numbers one to nine should be spelled out except when used for units of measurement; for numbers above nine, numerals should be used. Dorland's Medical Dictionary and Webster's International Dictionary may be used as standard references. Scientific names for drugs should be used when possible. Copyright or trade names of drugs should be capitalized.

Index to Advertisers

Abbott Laboratories
Erythrocin Sulfas 594-596

Ames Co., Inc.
Dextrostix 541

Anderson Surgical Supply Co. 598

Appalachian Hall 606

Ayerst Laboratories
Mediatric 586-587

Ballast Point Manor 606

Bristol Laboratories
Prostaphlin 534-535
Tetrex F. 593

Brown Pharmaceutical Co.
Cerebro-Nicin 603

Burroughs-Wellcome Co.
Neosporin 538a

Coca-Cola 578

Conal Pharmaceuticals
Urised 532

Convention Press 602

Duvall Home 598

Gebauer Chemical Co.
Ethyl Chloride 588

Geigy Pharmaceuticals
Hygroton 574a
Tandearil 574-574a

Highland Hospital, Inc 578

Hill Crest Hospital 610

Hynson, Westcott & Dunning, Inc.
Lactinex 531

Lakeside Laboratories, Inc.
Cantil 580
Imferon 605
Mercuhydrin 599
Norpramin 540

Lederle Laboratories
Bamadex 538a-539
Declomycin 538a
Stresscaps 598a

Eli Lilly & Co.
Co-Pyronil 558
Ilosone 598a
Tuinal 606a
V-Cillin K 546a

Medical Supply Co. 574

William S. Merrell Co.
Alertonic 544-545

Parke-Davis & Co.
Benadryl . . . . . Second Cover

Pitman-Moore Co.
Novahistine LP 611

P. L. Dodge Memorial Hospital 591

PM of Florida 574

William P. Poythress & Co.
Mudrane 549
Solfoton 548

A. H. Robins, Inc.
Ambar 546a

Roche Laboratories
Valium . . . . . Back Cover

Wm. H. Rorer, Inc.
Emetrol 543
Novestrol 536-537
Parepectolin 602

Sandoz Pharmaceuticals
Mellaril 574a

G. D. Searle Co.
Flagyl 574a

Smith, Kline and French
Thorazine 579

Stamas Boats 606a

Stuart Co.
Mylanta 606a

Surgical Supply Co. 606

Syntex Laboratories
Synalar 550-553

Tucker Hospital, Inc. 603

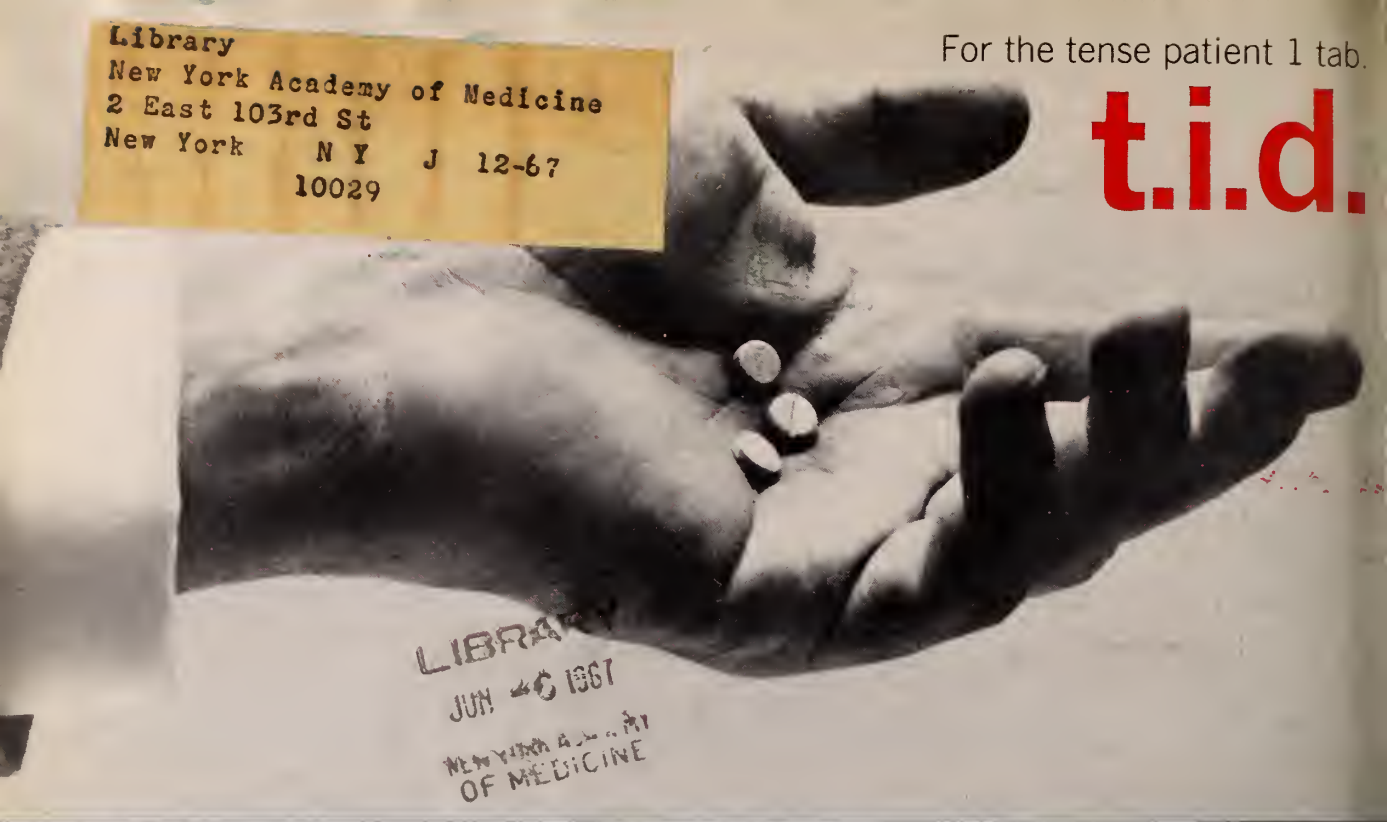
Wyeth Laboratories
Equanil 584-585

Wynn Pharmaceuticals, Inc.
Aminophylline 546
Numa-Dura 600

Library
New York Academy of Medicine
2 East 103rd St
New York N Y J 12-67
10029

For the tense patient 1 tab.

t.i.d.



LIBRARY
JUN 16 1967
NEW YORK ACADEMY OF MEDICINE

who can't sleep

h.s.



remember the extra tablet at bedtime

Valium

(diazepam)

Roche®

Before prescribing, please consult complete product information, a summary of which follows:
Contraindications: Infants, patients with history of convulsive disorders or glaucoma.
Warning: Not of value in the treatment of psychotic patients, and should not be employed in lieu of appropriate treatment.
Precautions: Limit dosage to smallest effective amount in elderly patients (not more than 1 mg, one or two times daily) to preclude ataxia or oversedation. Advise patients against possibly hazardous procedures until correct maintenance dosage is established; driving during therapy not recommended. In general, concurrent use with other psychotropic agents is not recommended. Warn patients of possible combined effects with alcohol. Safe use in pregnancy not established. Observe usual precautions in impaired renal or hepatic function and in patients who may be suicidal; periodic blood counts and liver function tests advisable in long-term use. Cease therapy gradually.

Side Effects: Side effects (usually dose-related) are fatigue, drowsiness and ataxia. Also reported: mild nausea, dizziness, blurred vision, diplopia, headache, incontinence, slurred speech, tremor and skin rash; paradoxical reactions (excitement, depression, stimulation, sleep disturbances, hallucinations); changes in EEG patterns. Abrupt cessation after prolonged overdosage may produce withdrawal symptoms similar to those seen with barbiturates, meprobamate and chlordiazepoxide HCl.
Dosage—Adults: Mild to moderate psychoneurotic reactions, 2 to 5 mg b.i.d. or t.i.d.; severe psychoneurotic reactions, 5 to 10 mg t.i.d. or q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; muscle spasm with cerebral palsy or athetosis, 2 to 10 mg t.i.d. or q.i.d. Geriatric patients: 1 or 2 mg/day initially, increase gradually as needed.
Supplied: Tablets, 2 mg, 5 mg and 10 mg; bottles of 50 for convenience and economy in prescribing.

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110

The New York Academy of Medicine

DUE IN TWO WEEKS UNLESS RENEWED
NOT RENEWABLE AFTER 6 WEEKS

DATE BORROWED	BORROWER